

Growing credibility?

The impact of certification on forests and people in South Africa



Bob Frost James Mayers Sarah Roberts



The impact of certification on forests and people in South Africa

Bob Frost James Mayers Sarah Roberts

2003 International Institute for Environment and Development, UK

In collaboration with Department for Water Affairs and Forestry, South Africa



Copies of this report are available from:

Forestry and Land Use Programme, International Institute for Environment and Development, 3 Endsleigh Street, London, WC1H 0DD, UK.

Tel: +44 207 388 2117 Fax: +44 207 388 2826 e-mail: forestry@iied.org http://www.iied.org

and The Librarian, Environmentek CSIR, PO Box 395, Pretoria 0001, South Africa. Tel +27 12 841 3640 Fax: +27 12 841 2689

Citation: Frost, B., Mayers, J. and Roberts, S. 2003. *Growing credibility: impact of certification on forests and people in South Africa.* International Institute for Environment and Development, London.

Cover photo: James Mayers Illustrations: Christine Bass Design: Eileen Higgins

Instruments for Sustainable Private Sector Forestry is a project coordinated by the London-based International Institute for Environment and Development (IIED) and is supported by the UK Department for International Development and the European Commission. The Instruments for Sustainable Private Sector Forestry series derives from this project.

Other studies in this series are:

- Foreign portfolio investment and Sustainable development: a study of the forest products sector in emerging markets. Maryanne Grieg-Gran, Tessa Westbrook, Mark Mansley, Stephen Bass and Nick Robins. 1998
- Privatising sustainable forestry: a global review of trends and challenges.
 Natasha Landell-Mills and Jason Ford. 1999
- Economic instruments for tropical forests: the Congo Basin case. Alain Karsenty. 2000
- Certification's impacts on forests, stakeholders and supply chains. Stephen
 Bass, Kirsti Thornber, Matthew Markopoulos, Sarah Roberts, Maryanne GriegGran. 2001.
- Raising the stakes: impacts of privatisation, certification and partnerships in South African forestry. James Mayers, Jeremy Evans and Tim Foy. 2001.
- Production, privatisation and preservation in Papua New Guinea forestry. Colin Hunt (editor). 2002.
- The New Foresters: The role of private enterprise in the Indian forestry sector. Sushil Saigal, H. Arora, and S.S. Rizvi. 2002.
- Getting the private sector to work for the public good: instruments for sustainable private sector forestry in China. Lu Wenming, N. Landell-Mills, Liu Jinlong, Xu Jintao and Liu Can. 2002.
- Company-community forestry partnerships: from raw deals to mutual gains?
 James Mayers and Sonja Vermeulen. 2002.
- Instruments for sustainable private sector forestry in Brazil: an analysis of needs, challenges and opportunities for natural forest management and smallscale plantation forestry. Virgilio Viana, Peter May, Lucineide Lago, Olivier Dubois and Maryanne Grieq-Gran. 2002.
- Silver bullet or fools' gold? A global review of markets for forest environmental services and their impacts on the poor. Natasha Landell-Mills and Ina T. Porras. 2002.

These studies are available from:

Earthprint Limited, Orders Department, P.O. Box 119, Stevenage, Hertfordshire, SG1 4TP, UK. e-mail: orders@earthprint.co.uk http://www.earthprint.com For enquiries – Tel: +44 1438 748111 Fax: +44 1438 748844 e-mail: enquire@earthprint.co.uk

Contents

Executive summary	i
Acknowledgements	iv
Acronyms	V
1. Introduction	1
2. Profile of the South African Forest Sector	3
3. Certification's rise and spread in South Africa	11
4. Impacts of certification	29
5. Future of certification in South Africa	39
Appendix 1. The questions asked during the information-gathering phase of the study	45
Appendix 2. Details of timber products manufacturers interviewed	47
Endnotes	48

Executive summary

Certification has developed more rapidly in South African forestry than in most countries of the South. This report looks at the motivations behind the spread of certification in the South African forest and wood products industry and describes how firms have implemented the two main systems used – the Forest Stewardship Council (FSC) performance-based approach and the International Organisation for tandardisation (ISO) process-based approach. The report assesses the impacts of certification on forest management, forest stakeholders and policy, as well as the impacts on certified company supply chains and market shares. It also looks forward to examine the potential future role of certification in enabling forestry to deliver tangible economic, environmental and social benefits.

South African forestry - a brief profile

Whilst South Africa's extensive woodlands are a major contributor to local livelihoods, it is the country's plantations which currently provide the basis for the economically productive forest sector. This plantation forest sector contributes 4.5% of the country's total GDP and employs 74,000 people or 1% of the total workforce. Three large companies Sappi, Mondi and SAFCOL dominate the sector. However, an increasing range of small and medium enterprises also plays an important role. The output of the sector is focused on the domestic market – it supplies some 95% of the country's wood-based products. The remaining production supplies a specialist export market for Do-It-Yourself furniture and pulp and paper products.

A number of recent developments are impacting on the direction and make-up of the industry. The government's forest privatisation process is predicted to introduce new entrants and diversify the concentrated ownership of forest assets. Meanwhile, the realignment of Sappi and Mondi to expand their international interests and focus on pulp and paper product markets has resulted in a consolidation of their operations around processing facilities for these products. A further development beginning to have an impact is forest certification.

Certification's status

South African companies have implemented two certification systems to varying degrees – ISO 14001 process-based and FSC performance-based certification. The main 'push' for FSC certification came from international retailers in the

1

The initial spread was boosted by the rapid speed with which the large companies adopted certification for their sawn timber interests. In addition to the market security this provided (despite the small proportion of their output entering the export market), these companies saw an advantage in utilising certification to improve their environmental credentials and to receive international recognition that their operations were being well-managed. The companies tended to develop specific capacity to ensure they obtained certification by employing specialists and, in some cases, had to manage a major change in mind set for employees with the introduction of externally audited standards.

Currently of the 1.5 million hectares of plantation forests in the country 830,000 hectares have been certified under FSC with a further 500,000 hectares managed under the ISO 14001 system. There are also 74 processors and manufactures that have obtained FSC chain of custody certificates for their operations. Industry commentators have suggested that this uptake has triggered the government's support for the development of national standards for sustainable forest management and the use of compulsory certification as a management condition specified in the lease used in the privatisation of state forest assets.

A second wave of certification is predicted by the industry as a result of the interest being shown in the international pulp and paper market caused by the introduction of the FSC percentage claim system for composite products.

Certification's impacts

Certification has led to the strengthening and formalisation of systems for environmental management and stimulated initiatives for the major companies to systematically improve their forest management. Companies have also seen a greater collaborative interaction with former detractors, as they are seen to be implementing better practice. However, the certification process has highlighted the inadequacies of companies' ability to internalise feedback and learning on other issues that are important for continued improvement, such as those stemming from the dynamic policy and legislative framework. For example, the exclusive nature of the meetings held to conclude each FSC certification audit, have prevented open discussion on possible improvements of procedures related to certification compliance.



iii

The costs of becoming certified have been comfortably borne by the large companies and have only been prohibitive for the smaller scale operations. Efforts are being made to increase the accessibility of the process for these smaller producers, through group certification schemes. Major market advantages and price premiums from certification have not been realised by the majority of those certified, yet most do not regret implementing certification as it has helped secure their position in current markets.

The weakest part of certification processes has been stakeholder consultation. Some major stakeholder groups have effectively been excluded by the continuation of long-standing patterns of interaction and mechanisms of consultation used by companies. This has been compounded by the lack of formal structures for ongoing consultation within audited companies to allow two-way communication on issues. Other failings include the subjective interpretation of certification's social criteria and the differing perception of role players' responsibilities to ensure compliance. The government led initiative to develop national standards is heralded as a key development to address these contentious issues. However, time will tell whether, in practice, the process can deliver the required objective benchmarks.

Certification's future

The expansion of forest certification is predicted by industry representatives to continue with renewed interest in certified products from the US DIY market and tentative interest from the international pulp and paper market. Initiatives are being developed to address the problems of access for certification for smaller producers with collective management arrangements, inclusion of formerly excluded stakeholders and improving contractor compliance.

Certification represents a major instrument by which the biggest companies in South Africa have invested in, and sought to demonstrate, sustainable forest management. But key challenges remain to be addressed if certification is to become an instrument capable of effectively addressing social issues, and remaining relevant for small and medium enterprises.

One of the key challenges is ensuring the national standards process delivers to its full potential. This is likely to mean that a non-government led initiative will be needed to enable a fully representative national group to develop a certification standard. Such a group will soon find itself grappling with another key challenge – that of certification's role in wider sustainable land use. Answers will then need to be found to the question of whether certification helps to bring about publicly beneficial land use, or merely serves to maintain inappropriate models of plantation forestry.

Acknowledgements

A wide range of people were involved in a study in South Africa which was part of a wider five-country collaborative research project coordinated by the International Institute for Environment and Development (IIED). This project, entitled *Instruments for sustainable private sector forestry*, ran from 1999 to 2001. The project in South Africa produced 20 sub-study reports and a synthesis volume: *Raising the stakes: impacts of privatisation, certification and partnerships in South African forestry* (Mayers, Evans and Foy, 2001). The certification theme of the work generated many further questions and considerably more detail than could be dealt with in the synthesis report, hence this companion volume: *Growing credibility? The impact of certification on forests and people in South Africa*.

Many people provided valuable information and insight in interviews during the course of the project: Pierre Ackerman, Brian Aitken, Louw Bekker, Lael Bethlehem, Professor Bredenkamp, Kevin Cazalet, Mike Coleman, Michael Edwards, Dave Everard, Bruce Ferguson, Sean Gannon, Erik Grobbelaar, Pieter Haarsbroek, Colin Harvett, Waldo Hinze, Rob Hoatson, Derek Kinsey, Fred Kruger, Fonda Lewis, Tsepo Malatji, Vuyo Mbelani, Shaun McCartney, Margaret Mkwena, Roland Muhl, Craig Norris, Peter Odendaal, Ben Opperman, Arnold Rossouw, Jaap Steenkamp, Pieter Vilijoen, Weideid Voster and Reg Zammit.

A further range of people made major contributions as sub-study authors, project advisory group members and workshop participants: Jock Boake, Rob Cairns, Jeanette Clarke, Colleen Crawford Cousins, Vosi Dladla, Nicki Dunne, Roger Godsmark, Cori Ham, Stephen Keet, Meshack Khosa, Fred Kruger, Rory Mack, Graham von Maltitz, Gerrit Marais, Babalwa Matsiliza, Bill Maynard, Shaun McCartney, Mafu Nkosi, Mike Pitcher, Andrea Rossi, John Scotcher, Dave Scott, Matt Sokhela, Anne Tallontire, Thidi Tshiguvho.

We also thank the reviewers of a draft of this document Lael Bethlehem, Jeanette Clarke, Tim Foy, Mike Garforth, Roger Godsmark and John Scotcher.

Financial support for this project was provided by the European Commission (EC) and the UK Department for International Development (DFID). Whilst this paper draws extensively on the perceptions of the above interviewees and the sub-studies developed in this project, the opinions expressed in this paper are those of the authors alone, and not necessarily those of sub-study authors, IIED, DFID or the EC.

Acronyms

CAR Corrective Action Request

DFID Department for International Development (UK)

DIY Do it yourself - home improvements

DWAF Department of Water Affairs and Forestry

EMS Environmental Management System

FMU Forest Management Unit FOA Forest Owners Association FSC Forest Stewardship Council GDP Gross Domestic Product

GEF Global Environmental Fund (American investment organisation)
GFP Global Forests Products GIS Geographical Information System

GMOs Genetically modified organisms

ha Hectare

IFBWW International Federation of Building and Wood Workers Union IIED International Institute for Environment and Development

INR Institute of Natural Resources

ISO International Organisation for Standardisation

m³ Cubic metre

NCT NCT Forestry Co-operative

P&C Principles and Criteria for sustainable forest management (FSC)

PEFC Pan European Forest Certification Framework

R South African Rand

SAFCOL South African Forestry Company Ltd
SATGA South African Timber Growers Association
SAWGU South African Wattle Growers Union
SABS South African Bureau of Standards

SFM Sustainable Forest Management SGS Société Générale du Surveillance

Currency exchange rates

2002 South African Rand 10.51 to US Dollar 1 (November)

2001 South African Rand 7.89 to US Dollar 1

2000 South African Rand 6.70 to US Dollar 1

1999 South African Rand 6.32 to US Dollar 1



1. Introduction

Certification has developed rapidly in the South African forest sector. This report looks at the motivations behind the spread of certification in the forest and wood products industry and describes how firms have implemented the two main systems used - the Forest Stewardship Council (FSC) performance-based approach and the International Organisation for Standardisation (ISO) process-based approach using the ISO 14000 series. The report assesses the impacts in terms of forest management and stakeholders, market share and supply chain relationships, and policy implications. It closes by discussing the future of certification in South Africa.

The key questions the report tries to answer are:

- What is the impact of certification on forest management, company operation, stakeholder relationships and product markets?
- What are the impacts of, and prospects for, certification on the whole supply chain and wider sector?
- What are the prospects for certification leading to further environmental, social and economic improvements?

This report is a companion volume to the country study: *Raising the Stakes: impact of privatisation, certification and partnerships on South African forestry (Mayers, Evans and Foy 2001).* The country study was coordinated by the International Institute for Environment and Development (IIED) in collaboration with CSIR Environmentek and the Department for Water Affairs and Forestry (DWAF).

This report provides more detailed analysis on certification than was possible in *Raising the Stakes* and is aimed at those working on certification both in South Africa and internationally – sharing the experiences and lessons learned. It also attempts to provide inputs into the debate on instruments for sustainable forest management and their efficacy. It is based on interviews with key stakeholders in South Africa and the UK. The interviews were carried out in two phases; the first between July 1999 – April 2000 and the second between August – October 2001. During each phase representatives of the forestry industry and key industry commentators were interviewed. The interviewees included: growers, processors, furniture manufacturers, retailers, retail suppliers, civil servants and certification auditors. The questions asked in these interviews are outlined in Appendix 1. The report also draws on the reports commissioned for the country study, listed in Box 1.



Box 1. Reports compiled for this study on certification in South African forestry

- D. Scott. Environmental Aspects of the Forest Management Certification Process. This report by an occasional member of FSC certification audit teams examines the audit inspection instrument and provides commentary on how it is used.
- J. Clarke. Social and Environmental Aspects of the Forest Management Certification Process: A Discussion of Social Assessment Components in South Africa. This report, drawing on audit experience, tackles the ability of FSC certification and the certification process to improve the well being of workers and communities dependent on plantations.
- J. Hamman. Forestry Certification: Social Aspects. Also by an occasional member
 of FSC inspection teams, this report analyses the composition and focus of the
 audit teams and highlights issues, which can compromise the positive impact of
 certification.
- N. Dunne. The Impact of Environmental Certification on the South African Forest Products Supply Chain. This study traces the route of FSC certified timber from mill to market, seeking to understand the impact of certification on traders and retailers in South Africa and the UK.
- G. von Maltitz. The Impacts of the ISO 14000 Management System on Sustainable Forest Management in South Africa. This is a study focusing on one company's decision to adopt ISO accreditation, comparing the impacts of the ISO system with those of FSC certification.
- C. Crawford Cousins. The Impacts of Stakeholder Consultation in the FSC Certification Process on Sustainable Forest Management in South Africa. Focusing on the Stakeholder consultation process within FSC certification, this report highlights key assumptions about the efficacy of consultation.

The report forms part of a much larger IIED study, *Instruments for sustainable private sector forestry* (see inside front cover of this report for more details). Within the project, various investigations have been carried out into the *impacts of certification on forests, people and markets* and these have been synthesised by Bass *et al* (2001). This report on certification in South Africa is thus one of several which have taken a supply chain approach, analysing the relationships that link a forest in one country to the products purchased in another. Interviews have been carried out with key players along the supply chain, which begins in South African forests and ends in UK retail stores, in order to assess how information about certification was transmitted and how the costs and benefits are distributed. Similar work has been carried out in Poland and Brazil.

The remainder of this report is divided into four sections, these are:

- Section 2: Profiles the forestry and wood products industry in South Africa and describes the different players.
- Section 3: Describes the development of certification in the country, the
 motivation behind becoming certified and the spread through the supply chain,
 plus the experiences of key stakeholders with the implementation of certification.
- Section 4: Outlines the impacts of certification from the forest management unit through the supply chain.
- Section 5: Reviews the future trends and challenges for the forest sector and certification.

2. Profile of the South African Forest Sector

This section profiles the forest sector in South Africa outlining the economic contribution of the sector, the range of players involved, and the major trends in the sector's development.

The forest resource

South Africa is a semi-arid country with limited areas of closed canopy indigenous forests. Approximately 66% of the total area of the country is not under any form of forest cover. The largest forest biome in the country is woodland on both private and communal holdings with an estimated area of 25-30 million hectares. Though woodland is an important resource for rural communities (e.g. building materials, fuel wood, medicinal plants etc) and conservation it is not managed to a significant degree for commercial forestry. A similar situation exists in the 330,000 hectares (0.3% of the total land area) of indigenous closed canopy forests, although limited commercial timber harvesting does occur on small areas under the management of DWAF. The remaining forest area of exotic forest plantations is the focus of the commercial forest sector located in the less arid Eastern side of the country.

The development of the commercial plantation forest sector began at the end of the nineteenth century and saw rapid expansion in the latter half of the twentieth century. In the period 1980-2000 roundwood production increased from 12 million m³ to almost 19 million m³ with an expansion in afforested area of 30% over the same period. Over two-thirds of the annual production is utilised by the pulp, paper and board industry and a further 20% by the saw milling industry. The forest and forest products sector is an important contributor to agricultural and manufacturing Gross Domestic Product (GDP). Table 1 outlines the contribution of the sector.

The players

Three major players - Sappi, Mondi and SAFCOL - currently dominate the South African forest sector (Box 2). Sappi and Mondi operations in South Africa are part of much larger international corporations with interests in Europe, Asia and the USA.



Table 1. The South African forest sector – key facts ⁱ				
Plantation area	1.5 million hectares			
Plantation ownership	Large – Mondi Forests, Sappi Forests ¹ , SAFCOL (53%);			
(percentage area)	Medium - GFP ² , Hans Merensky, Mansonite (11%);			
	Small – Commercial growers (SATGA) (21%); Micro –			
	out growers (3%); and public – DWAF/Municipalities			
	(11%).			
Commercial species	Pine (56%), eucalyptus (32%) and wattle (11%).			
Forestry output	R2.1 billion (US\$266 million) or 8.5% of agricultural			
	GDP (4.5% of total GDP)			
Processing facilities	92 sawmills, 4 veneer mills, 13 pulp, paper and board			
	mills, 11 mining timber mills, 23 pole treating plants,			
	2 match factories and 3 charcoal plants.			
Processing capacity	Mondi, SAFCOL and Sappi, a number of smaller saw			
ownership	milling groups and 300 informal sawmills ³ .			
Forest products	R9.1 billion (US\$1.2 billion) or 7% of manufacturing			
production production	GDP (R14 billion including paper (US\$1.7billion).			
Domestic market	95% of South Africa's wood based product			
Domestic market	requirements.			
Exports	R5 billion (US\$633 million) worth of wood products			
Exports	annually (4% of country's exports in 1999).			
Markata (avnart)	, , , , , , , , , , , , , , , , , , ,			
Markets (export)	UK, Germany and USA for furniture, Taiwan, Japan			
	and the USA for pulp and waste paper, Europe, the			
	USA, Australia, Hong Kong for paper and board			
Employment	74,000 (1% of the total working population) ⁴			

Box 2. The big three companies in South African forestry

Sappi Forestsii

Sappi owns and manages 550,000 ha of plantation forests in Southern Africa (70,000 ha in Swaziland). In 2000, these supplied about 50% of the company's domestic wood and fibre requirements. Sappi Forest Products has the capacity to produce 1.7 million tonnes of bleached and unbleached pulp and dissolving pulp. Sappi is the world's largest manufacturer of coated wood free paper and dissolving pulp, manufacturing 5 million tonnes of paper and 3 million tonnes of pulp in plants on three continents. It has customers in 100 countries and over 85% of its sales and 70% of its US\$6 billion assets are outside Southern Africa. In 1998, it restructured its operations into a fine paper company based in London and a forest products company based in Johannesburg, in total, the Sappi Group employs 19,000 people worldwide. The company's annual net sales in 2000 were US\$4.7 billion, 81% of which came from the fine paper division.

^{1.} This document only refers to Sappi's assets and operations in Southern Africa (South Africa and Swaziland).

 $^{2.\} GFP$ – Global Forest Products a company owned by Mondi Forests and an American investment company Global Environment Fund (GEF).

^{3. 30%} of softwood lumber sales in 1999 were sourced from informal sawmill operations.

^{4.} The majority of the jobs are located in the rural areas where other employment opportunities are severely limited.

Mondiⁱⁱⁱ

Mondi is owned by Anglo American, De Beers and AMIC and manufactures pulp, paper, board and solid wood products. It has total assets of R7.2 billion (US\$912) million) and its annual turnover is R5.2 billion (US\$659 million). Mondi manages 430,000 ha of timber resources and employs 22,000 people. Since the late 1980s, Mondi has been following a strategy of acquiring shares in foreign companies through their international arm, Mondi Minorco Paper (MMP), in order to develop a global presence. MMP is a partnership between Anglo American, Minorco and Mondi, who hold 20%. The partnership currently has assets of approximately US\$1 billion and earnings of around US\$100 million per annum. Its recent acquisition of HL&H Timber has led to a R1 billion (US\$126 million) timber division and expanded Mondi's timber sales to six million tonnes per year. In South Africa, Mondi produces chips, carton board, kraftliner, corrugating papers, newsprint, supercalendered paper as well as bagasse (sugarcane residue) fibre fluting. 40% of its production is exported. At the beginning of 2001 Mondi undertook a turn around in its saw milling operations by divesting its northern South African saw log plantations and sawmills by forming Global Forest Products (GFP) - see below.

South African Forestry Company Ltd (SAFCOL)

SAFCOL was established in 1992 to corporatise the former Republic of South Africa's forestry interests in preparation for privatisation. Currently, SAFCOL is a parastatal reporting to the Minister of Public Affairs through the Board of Directors and is in the process of being sold off to private investors. SAFCOL manages 260,000 ha of plantation forests, 5 sawmills and employs approximately 5000 people. In 2000, SAFCOL's turnover was approximately R583 million (US\$74 million).

In addition to the above three large companies, the Department of Water Affairs and Forestry – the government's forestry agency responsible for the regulation and promotion of the sector – is also a commercial player. It manages some 143,000 hectares of commercial plantations in the former homeland areas (which are now part of the SAFCOL privatisation process), and areas of indigenous forest on state land. Despite the dominance of the three large companies and government mentioned above, a range of micro, small and medium enterprises play an important role in both the growing and processing sector. The key medium-sized players are described in Box 3.

Box 3. The mid-field: medium-scale forestry companies

Hans Merensky Foundation

The Hans Merensky Foundation owns a total plantation area of 69,000 hectares (including 58,000 hectares of softwood plantations purchased in the first round of state privatisation) with processing facilities producing 70% of all hardwood sawn timber production in South Africa. The Foundation's "Northern Timbers" operation in Tzaneen consist of 11,000 ha of hardwood plantations and a sawmill with the balance of the plantation area and a softwood mill located in the Eastern Cape. It was established under the will of the late Hans Merensky, a geologist and philanthropist. The will stipulates that the proceeds from the Foundation are used to foster sustainable and environmentally sound agriculture and forestry. The foundation has pioneered the use of eucalypts as saw timber and is known for its special

6

engineering beams made of finger jointed and steam bent eucalypt timber. The Foundation was the major shareholder in the Singisi Forest Consortium that recently acquired the Government's first forestry assets to be privatised.

Masonite Africa

Masonite owns 18,000 hectares of hardwood plantations supporting their own hardboard mill in Estcourt in the Natal Midlands, the only such plant in South Africa. As well as manufacturing various hardboard products under the "Masonite" brand name, they also manufacture a range of pressed hardboard door panels. At the end of 2001 International Paper, Masonite Africa's parent company, sold their entire Masonite subsidiary, including its South African subsidiary, to a Canadian Company, Premdor. As of 1 January 2002 Premdor's Masonite acquisitions changed their name to Masonite International Corporation. The company owns plantations both north and south of Pietermaritzburg, where it grows trees used in the production of Masonite boards at its own processing facility.

Global Forest Products^{iv}

This is a joint venture company initiated in 2001 between Mondi and an American investment company (Global Environment Fund). GFP has 67,000 ha of FSC certified plantations inherited from Mondi, 29,000 ha of conservation land, 2000 employees and three saw mills in the Northern and Mpumalanga Provinces. The company has a 5-year business plan focused on a US\$ 60 programme of sawmill upgrading, high quality timber for furniture, and increased value and volume of export markets. Mondi retains 49% of share holdings in GFP.

There is a substantial 'drop' in scale between the above medium-scale players and the small or micro growers, two thirds of whom are participating in company out grower schemes (Box 4).

Box 4. Small and micro growers

NCT Forestry Co-operative Limited (NCT) is a co-operative marketing company representing about 4000 small and micro growers supplying 1.6 million tonnes of timber in 2001, 90% of which was in the form of chips to the pulp / paper market.

There are approximately 19,000 growers holding woodlots averaging 2 hectares in size with a total area of 43,000 hectares. 12,000 of these growers are participating in out grower schemes sponsored by Mondi and Sappi. The main incentive for people's involvement in out grower schemes is to obtain a cash income to supplement their other livelihood supporting activities. Typically, between 1-2 hectares are planted on smallholdings supported by financial and technical inputs from company extension foresters. The companies recuperate their investment from the harvesting returns and securing the supply of timber with an agreement for first refusal to buy. The established schemes are now producing 3-5% of the throughput of the companies' capacity. This is a relatively insignificant proportion for the companies, but of major importance to the growers – each of whom can earn between 12-45% of the income required to keep them above the poverty line^V.

The wooden furniture sector

This sector has been the one, which has seen most interest in certification. The value-added timber products sector is divided into two main groups – firms focused on the domestic market who mainly use particle board, and export-oriented firms manufacturing almost exclusively solid timber, pine, and to a lesser extent, Saligna and other Eucalypt species. The domestic market is by far the most important market for local producers.

Exports are focused on pine 'knock-down' household furniture (e.g. beds, wardrobes, desks and tables), small houseware items (e.g. wooden kitchen utensils and ironing boards), DIY products (e.g. shelves and doors), and increasingly, Saligna garden furniture. A key feature of South African furniture exports is their low unit value (see Table 2)^{vi}.

Table 2. British Timber Furniture Imports from Selected Countries VII					
Imports to the UK from:	% of Trade	Unit Value (Euros/ton)			
France	3.7	5.2			
Italy	15.0	4.6			
Germany	7.9	4.6			
USA	3.6	4.3			
Croatia	0.4	4.0			
Denmark	6.9	3.7			
Indonesia	5.6	3.4			
Chile	0.1	2.5			
Malaysia	3.9	2.3			
China	3.9	2.3			
Poland	1.8	2.3			
Canada	0.4	2.3			
Brazil	3.7	1.9			
South Africa	4.1	1.7			

Participants in the wooden furniture sector also range in scale with a number reliant on export markets for income (see Appendix 2 for a description of the manufacturers interviewed for this report). One such company is profiled in Box 5.



Box 5. David Egenes Timbers - a major forest product manufacturer

David Egenes Timbers began operating in 1990, and currently employs 1100 people and has an annual turnover of a bout R110 million (US\$16 million), making it one of the largest timber products manufacturers in South Africa. The company produce 100% for the export market, and export most to EU countries, the USA and Australia. They produce DIY products (shelving and garden furniture), predominately in pine, although some Saligna is used. The company purchases R45 million (US\$6.8 million) of raw timber per year, of which R30 million (US\$4.5 million) is purchased from Mondi. Viii

Recent changes and future trends

Privatising state forests

The South African forest industry is currently in a considerable state of flux. The government is combining SAFCOL's assets with some of the commercial forests managed by the Department of Water Affairs and Forestry, in one of the largest privatisations of state forest assets in the world. A total of seven packages of forested land, totalling 335,000 ha was offered to investors in the form of long term leases (at least 70 years) valued at between R1-1.5 billion (US\$149-224 million). The sell off is structured with the aim of 75% ending up in private ownership, 10% going to black economic empowerment groups, 10% to the National Empowerment Fund and the remainder split between employee share ownership schemes and government. Industry commentators predict the state restructuring process will be a boost for the somewhat stagnant saw milling sector by introducing new players and dynamics.

The first SAFCOL/DWAF package was transferred to a private consortium, Singisi Forest Products, on 1 August 2001. The package consisted of a total plantation area of 57,000 ha and included the Weza sawmill. Of the total area 45,000 ha was formerly under DWAF management (not certified) and is required to obtain certification within 24 months of the transfer as stipulated under the lease agreement. The second package was transferred in early 2002 and consists of 25,000 ha of former SAFCOL land, which currently holds a FSC certificate. All remaining DWAF commercial plantations will be transferred to SAFCOL simultaneously. Thereafter, the remaining areas will be packaged and re-tendered or alternative processes devised for their future management.

Some areas within the first two packages, and some of the remaining areas, have been identified as unsuitable to remain under forestry on either environmental or economic criteria. The plantations in the Western Cape did not receive a bid during the tender as the plantations are not economically sustainable and the opportunity costs of keeping them under trees substantial. In addition, despite having a current FSC certificate an area of plantations ($c.7000~{\rm ha}$) on the Western Shores of Greater St Lucia Wetland Park will be excised from the privatisation package and converted to a more appropriate land use over a five year period. In total, approximately 57,000 ha of land will be excised and managed for non-timber objectives post-privatisation.

Focusing on the international pulp and paper market

Sappi and Mondi are both in the process of repositioning their business with a focus on supplying relatively cheap pulp and paper products to the European, North American and Asian markets. Much of their production now takes place in Europe. Although the two companies have substantial sawn timber assets, both in terms of trees and production facilities, recent indications are that they are considering divesting this side of their business citing the low profitability of this sector. In addition, South Africa's sawmill technology is significantly behind that of its major competitors so both companies are facing tough choices to either invest heavily and upgrade, or to get out of the sawn timber market.

Sappi has stated that it will list Sappi Timber Industries (saw milling interests) separately when market conditions are right. The mining timber operations formerly under Timber Industries have recently been disposed of in a management buy out. Mondi recently acquired HL&H Timber which has doubled their timber production capacity, yet in May 1999 the company issued a memorandum to merchant banks indicating that it was looking to rationalise local forest holdings and solid wood assets in order to concentrate on its core pulp and paper business. The first stage of this move came at the beginning of 2001 with the formation of GFP in partnership with GEF an American investment organisation to take over the ownership and management of their northern South African timber interests. The formation of GFP is seen as a response to the opportunity to penetrate the USA DIY market for FSC certified pine furniture, which is predicted to expand rapidly. The State restructuring and sector realignment may result in a different ownership pattern in the sawn timber sector and renewed investment capitalising on the existence of certified plantations.

Outsourcing functions

Another major trend, within which the following discussion of forest certification must be contextualised, is the trend across many sectors towards outsourcing. In the forest industry, this has been a very significant trend – raising opportunities for some, and having major negative impact on more vulnerable forest worker groups and surrounding communities.

3. Certification's rise and spread in South Africa

This section provides a brief description of the main forms of forest certification the motivation behind their adoption and spread through the forest products supply chain. The experiences with implementing forest and chain of custody certification are also captured with a summary of the current status of certification in the country. The majority of the narrative focuses on FSC certification due to its broad uptake in the sector by a range of players.

Box 6. What is certification and how does it work? ix

Forest management certification is a relatively new type of procedure. However, quality management certification has been in existence for a long time and has become a condition of trade in many markets. A third party inspector (the certifier) gives a written assurance that the quality of forest management practised by a defined producer conforms to specific standards. It is conceived as a voluntary procedure, which buyers may choose to specify, and which producers may choose to employ. By providing information about the origins of a traded forest product, certification attempts to link market demands for products produced to high environmental standards with producers who can meet such demands. As such, it has the potential to act as a market incentive for better forest management. Forest certification has evolved since 1989, and is part of a general trend to define and monitor standards for environmental and social improvements in natural resource use.

The general practice of forest certification is as follows: At the request of the forest enterprise, the third party certifier conducts:

- an independent audit of forest management quality;
- in a specified forest area;
- under one management regime;
- against specified environmental, social and economic standards;
- by assessing documents which prescribe and record management, together with checks in the forest;
- followed by peer review of the assessment;
- resulting in a certificate for a period; and/ or a schedule of improvements ('corrective action requests' or CARs);
- plus regular checks thereafter to maintain the certificate.

The main approaches to forest certification are:

The Forest Stewardship Council (FSC) approach: most widely recognised international system of forest certification. The FSC was established precisely for the



purpose of forest certification to promote high performance standards. The approach offers a global set of Principles and Criteria (P&C) for good forest stewardship; an international accreditation programme for certifiers; a trademark, which can be used in labelling products from certified forests; and a communication/ advocacy programme. Chain of custody also certifies the route of products from the forest through the processing chain and verifies that the product is indeed from a certified forest. At present the FSC-accredited schemes are dominant.

The Pan-European Forest Certification Framework (PEFC): provides a framework for the mutual recognition of national certification schemes. The PEFC approach is the first real alternative to FSC and is a voluntary private sector initiative. It has the support from both the European and national governments (uses Pan-European Criteria and Indicators for SFM), and is designed to ensure small woodland owners are not disadvantaged, and the schemes reflect local circumstances. National certification schemes that meet the requirements of the PEFC can apply for the right to use the PEFC trademark for product labelling.

The International Organisation for Standardisation (ISO): offers a framework for certification of environmental management systems (EMSs) through its ISO 14000 series. It differs from forest management certification as it does not specify forest management performance standards and does not confer a label on products, severely limiting how products can be promoted in the market. It certifies the EMS rather than the forest. In some instances, companies are having their EMS certified in preparation for forest performance certification under FSC or a national scheme.

National certification programmes: are proliferating with the establishment and initiation of about 24 to-date. The schemes fall into three categories: (i) those aligned at the outset with FSC or PEFC; (ii) those that develop independently but aim for compatibility with FSC and/or PEFC; and (iii) those without any links to an umbrella scheme. The majority of national schemes are market-orientated, voluntary and performance-based, however, some also incorporate elements of the ISO 14001 EMS (Canadian Standards Association pioneered this approach).

Current status of certification

Forest Stewardship Council

By August 2002, the FSC had issued 14 forest management certificates in South Africa, covering 898,225 ha of forest putting it in the top 10 countries in terms of area certified per country. Forest certification to date has focussed on commercial plantations. A limited area of indigenous forest is managed by DWAF for timber production and the Department is investigating obtaining FSC certification. Table 3 summarises the areas certified in South Africa.

Prior to the ongoing privatisation process, SAFCOL had their entire forest operations FSC certified (271,362 ha), and the new managers of the forest areas transferred under lease agreements are obtaining certification themselves (see 'public' plantation in Table 3 above). Mondi has obtained certification for all its forests except for 35,000 ha under their North East Cape Forests management,

Table 3. FSC certified forest area in South Africa, August 2002 ^{Xi}				
Enterprise (and main species involved)	Type of certification	Area certified (ha)		
Amatola Forestry Company (Pty)	Public plantation	10,051		
Global Forest Products Pty Ltd	Private plantation	92,023		
Komatiland Forest (Pty) Limited	Private plantation	64,378		
Komatiland Forest (Pty) Limited	Public plantation	58,818		
Masonite (Africa) Limited	Private plantation	11,365		
Mondi Forests – Lowveld, Komati, Piet Rtief, Natal and Zululand (pine and eucalyptus)	Private plantation	431,301		
MTO Forestry (Pty) Ltd. Eastern Cape Region	Public plantation	31,332		
MTO Forestry (Pty) Ltd. Western Cape Region	Public plantation	53,953		
NCT Forestry Co-operative Ltd. (wattle, pine and eucalyptus)	Private plantation (Group scheme)	43,760		
Northern Timbers	Private plantation	940		
Sappi Forest Products (pine and eucalyptus)	Private plantation	48,507		
Singisi Forest Products Pty (Ltd)	Private plantation	27,257		
Siyaqhubeka Pty Ltd	Public plantation	22,800		
Tropical Charcoal (pine, wattle and eucalyptus)	Communal plantation	1,740		
Total		898,225 ha		

where it is awaiting the end of the rotation and product selection. Global Forest Products a Mondi subsidiary mentioned previously has had its former Mondi plantations certified. Other certificates cover two of Sappi's saw log operations, the NCT group scheme, and smaller areas of pine and wattle, some being managed for co-operative charcoal production. In addition, to the forest management certificates, 74 FSC Chain of Custody certificates are currently held by South African companies, 5% of the global total Xii.

International Organisation for Standardisation

ISO 14001 certification has also become established in the South African forest industry. Sappi was the industry leader in the introduction of the ISO Environmental Management System (EMS) to its organisation. Currently, all its forestry operations (500,000 ha) and five of its eight pulp and paper mills are ISO 14001 certified The ISO system is planned to be 'rolled-out' to Sappi's Southern African operations by the end of 2002 or mid 2003 at the latest.

However, due to market interest Sappi is considering expanding its area of plantations under FSC certification and is introducing FSC Chain of Custody certification to its processing facilities where necessary. Mondi has introduced ISO 14001 to all divisions except Mondi Forests due to the market demand for FSC. However, they have adopted many structures and procedures from the ISO EMS to improve the environmental management performance of the organisation (assisting them in obtaining FSC certification) without having the cost of ISO auditing. SAFCOL has been contemplating the introduction of ISO 14001 to improve its management systems, however, due to the restructuring process this has been put on hold.

Company motivation for certification – the 'push and pull'

The initial 'push' for FSC certification in South Africa was prompted by B&Q's request for certified products. As a member of the WWF 1995 Buyers Group, B&Q had adopted a policy to buy FSC certified timber products by the year 2000 (Box 7). The policy was transmitted to their South African suppliers via B&Q's long-standing South African agent Alpine Trading. Local suppliers' interpretation of the policy was that if they wanted to continue supplying this lucrative export market, they had to obtain FSC chain of custody certification.

Box 7. B&Q – a do-it-yourself catalyst to certification xiii

B&Q (part of the Kingfisher group) is the UK's largest DIY and home improvement retailer with over 300 stores in the UK and others in Poland, China and Taiwan. The company currently sells approximately 3 million cubic meters of round wood equivalent annually. Due to pressure on UK retailers trading in tropical timber from environmental groups concerned about the impact of markets on deforestation, the company became the first member of the WWF 1995 buyers group. As part of this group B&Q adopted policies and practices to enable the identification of source forests for its products and ensuring the principles of sustainability were adhered to through the use of FSC certification. The initial policy was by the year 2000 to only source wood products that had an FSC certificate, however, the demand for FSC timber has not been met and the group has refined its policy to accept supplies from organisations working towards certification (FSC or other schemes likely to be recognised by the FSC).

There was also an expectation that certification would give them an opportunity to capitalise on their existing relationship with B&Q, and increase their sales to other major UK or European retailers. In addition, to a potential market expansion it was originally believed that premiums for certified timber might be available. Some companies adopted certification, as they were supportive of the aims of FSC and saw it as a means of demonstrating their environmental commitment internationally (Box 8).

Box 8. TDM - a first mover along the FSC route xiv

TDM is one of the larger timber products manufacturers in South Africa employing 680 people to produce house doors for the domestic and overseas markets. Their primary export market is the UK, followed by the USA and Australia.

TDM was a forerunner in the South African drive for FSC certification, and has been certified for about 5 years. The company has an ongoing interest in environmental issues, so invested time in getting key players along the supply chain (mills and forests) involved in the process, to ensure that there was sufficient certified supply. Although TDM supplies B&Q, the primary motivation for obtaining FSC certification was to improve the company's general reputation on environmental issues, rather than simply to respond to market pressures. There was never any question about a choice between FSC and ISO 14001 as an environmental system -ISO is seen as 'a set of rules about how to write rules', while FSC is a simple 'pass or fail' system. The company does have ISO 9001, and has been certified since 1981. When TDM was certified there was no accredited certifier in South Africa. and the company was forced to use SGS from the UK. This proved extremely expensive, as the cost of assessment was paid in GB pounds. SGS has subsequently opened an office in South Africa, and the cost of certification is now much lower.

Passing the pressure down the supply chain

Once exporting companies were convinced that they should become FSC certified, they needed to source certified timber, so turned their attention to convincing their suppliers, the sawmills and their parent companies that they should be FSC certified. This took some time. There was considerable confusion about what certification involved, its potential costs and benefits, the relative merits about FSC and ISO 14001, and the business implications of committing to a particular system.

"FSC is a system that needs everyone on board to work."

Manager, Alpine Trading

Box 9. Braecroft Timbers - feeling the pressure to certifyXV

Braecroft Timbers is owned by Steinhoff International Holdings Ltd, and comprises five sawmills and two manufacturing units. The five sawmills produce timber for the local and export market, while the manufacturing units produce shelving and other value-added products for the export market. The company has been focusing its attention on exporting for the past six years, and for the last two has been under pressure to get FSC certification.

Braecroft is in the unusual position of viewing the pressure towards FSC certification from both a manufacturing and a saw milling perspective, and it was pressure on both of these operating activities that prompted the company to apply for FSC certification. On the manufacturing side B&Q was a major customer, and was beginning to demand FSC certified products, while on the saw milling side, other South African timber products exporters were exerting pressure on Braecroft to obtain chain-of custody certification for its sawn timber.

As pressure for FSC was limited to the export market, Braecroft chose to certify only their two mills with adjacent export manufacturing units. The Weatherboard mill and factory were certified in June 1998, and the Malenge mill & factory in September 1999. Of the two FSC certified mills, about 50% of the timber ends up in the export market.

The company is still supplying B&Q, although FSC has not offered any specific market advantages, as "everyone has it". But the company is sure that without FSC they would have lost access to this market. FSC has been a prerequisite for gaining other customers in the UK. However it has not had any effects on relationships in terms of price premiums, nor has it brought about long-term commitments from buyers.

To try and overcome some of the forest companies' concerns, key exporting companies and Alpine Trading, B&Q's agent, organised a seminar where SGS⁵ explained what FSC entailed. The strong signals sent out by B&Q were pivotal in stimulating Mondi's decision to certify. Similarly SAFCOL was prompted to bring its sawmills into the FSC system as demand from its customers grew.

"The biggest breakthrough for the system in South Africa was the decision of Mondi's single biggest sawn timber customer to go for FSC certification". Manager, Alpine Trading

Box 10. Moxwood - passing pressure up the supply chain XVI

Moxwood has developed from a family firm manufacturing lounge suites and coffins to a 600 strong component of the international Steinhoff furniture group, exporting pine products to the DIY industry in Europe and North America. The UK accounts for almost two-thirds of the market, where it supplies companies such as B&Q, Wickes, Homebase and Jewsons primarily with doors and door components.

As Moxwood is an exclusively export oriented company, it is very responsive to international trends and five years ago brought in Phil Flowers to develop an ISO 9002 quality system for the company. Soon afterwards the company then began to face pressure to demonstrate their environmental credentials. With the UK market increasingly requiring FSC certification, and competition from Poland who began supplying certified pine, pressure to adopt FSC mounted. Moxwood felt that there was no efficient way of segregating certified and non-certified supplies so put considerable effort into convincing their suppliers to become certified, including helping to facilitate a meeting between the certification body SGS and sawmills. They now purchase solely FSC certified products.

By getting FSC certification when they did, Moxwood believe that they managed to keep their South American competitors out of the market for at least a year. At present the US market is still more interested in ISO 14001 environmental management system than FSC and Phil is integrating ISO 14001 with their existing ISO 9002 system. The biggest difficulties has been developing systems that work for people who can't read and in ensuring that they are abiding by all the national legislation, which is changing fast. Moxwood found putting the ISO

management system in place initially very expensive, as they had to keep flying in UK based certifiers but this has ceased to be an issue now that there is an SGS office in South Africa. Phil estimates that it cost around R60, 000 (US\$9000) (excluding the cost of his time) to get ISO 9002 certification and about a third of that to get FSC chain of custody certification.

The pressure from furniture manufacturers for supplies of FSC certified timber created a 'ripple effect' down the supply chain. As major customers of South African sawmills they exerted influence for the mills to obtain FSC chain of custody certification.

Box 11. Sawmills - crucial links in the certified supply chain XVII

The former SAFCOL sawmill at Weza was built in 1953 and employed 306 people, processing saw logs from SAFCOL's Weza plantation⁶. 70% of their production goes to South African wood product manufacturers such as furniture manufacture. Most of the rest goes to the construction industry and a small amount of it is exported as board to UK customers. The Weza plantation and sawmill were certified as a result of pressure from their customers and they hoped that they might be able to charge higher prices as a result. Getting certified was easy for them since all their timber comes from one FSC certified plantation and has made their customer base more secure.

The Sappi sawmill at Lomati in Mpumulanga also gained FSC chain of custody certification in 1999 after pressure from South African furniture manufacturers. The 40% of their logs which comes from certified sources have their ends spray painted and have to be kept separate from timber from Sappi plantations which are not yet certified. The sawmills put a lot of pressure on Sappi to get their saw timber plantations certified. Sappi agreed and consequently all of these plantations obtained FSC certification. The sawmills paid half of the estimated R0.5 million (US\$79,000) costs. The sawmill already had ISO 9002 certification, which they see as a prerequisite for implementing ISO 14001 environmental systems and they are now developing an integrated quality, environmental and health management system.

Timber companies – weighing up the benefits

The decision by the major timber companies to be certified was not purely the result of customer pressure. In direct commercial terms Sappi and Mondi could generally afford to ignore such pressure since the sawn timber business is becoming less important to them and they are focusing their efforts on paper products, where interest in certification has been much lower. Within the sawn timber division, wood for value-added timber products manufacturing is a very small part of the milling groups' business and the relationship between manufacturers and the mills is often problematic for this very reason. However, there were a number of other business and reputational reasons why the timber companies took the decision to go for international certification.

^{6.} The Weza sawmill and plantation were privatised on 1st August 2001 as part of the first package transferred to the private sector.

For Mondi, the decision to become FSC certified was seen as a way of 'staying ahead of the game'. The timber division had received requests from its buyers who were selling into the UK market but the company also saw certification as a mechanism for ensuring that it had rigorous systems in place and that it would have no difficulty meeting forthcoming domestic legislation. Mondi's Northern region was certified in 1997 and by early 1999 its entire forest operations had been certified.

In Sappi's case, supply chain pressure is the main reason why the company is pursuing FSC certification. Some Sappi senior managers have fundamental concerns with the way that the FSC has been designed and is implemented. For example, they are concerned that the FSC accredits certifiers (instead of a third party accrediting the certifying body as competent to do the FSC's work), and feel that they would rather meet national sustainable forest management standards than externally generated standards.

"The relevance of FSC's Principles and Criteria can be questioned in the absence of national standards and their inherent weakness in being used on plantations"

Environment Manager, Sappi

In addition, Sappi's major focus is paper where there is much less pressure at present for FSC. Sappi's management therefore firstly made the decision to concentrate on ISO 14001, and Sappi became the first company in Africa to gain the certificate. Gaining ISO 14001 certification was aimed at satisfying the demand from customers for an independently verified environmental standard. In time, however, even though sawn timber is only a small proportion of its business, the pressure on the company's milling operations became so great (see box 11) that the decision was finally made to certify this side of their operations to FSC.

SAFCOL's reasons for becoming certified were somewhat different to the other companies. SAFCOL had faced considerable criticism from local NGOs and had been looking for a way of demonstrating their social and environmental credentials for a number of years. The FSC certification scheme fitted their requirements and SAFCOL's KwaZulu-Natal region was one of the first plantation areas in the world to be FSC certified. The rest of their 45 plantations followed, and by early 1998

"Certification in South Africa has almost reached a critical mass where enough momentum has been generated to allow its further spread to be selfperpetuating". Representative from Forest

Representative from Forest Industry Association

their entire forest area and all their mills had been certified. It was only once certification was underway that SAFCOL began to receive requests from buyers for certified timber. Another potential motivation for SAFCOL's certification, according to some industry commentators, was to increase the company's attractiveness to private investors.

Certification has now effectively become the norm for the major players. Companies are almost forced to gain certification to ensure continued market access. Furthermore, a number of signals from the markets have recently supplied a fresh 'push' for South Africa's noncertified growers to become certified (see below).

"B&O was the cause behind our certification: they set the standard, and our customers had to follow". Exporting company spokesman

Spread of certification through the supply chain

The first wave

The first wave of FSC certification in South Africa can be clearly attributed to B&Q's interest in sourcing certified products, which catalysed interest in the system. B&Q's agent in South Africa, Alpine Trading, was instrumental in publicising the FSC throughout the South African forest products sector. Alpine Trading's early experience of promoting FSC was that the system spread slowly, and was initially regarded as something of a "money-making racket" by some firms and it was generally only those firms with a direct relationship with B&Q who were prepared to get certified initially.

Once the key mills supplying sawn timber to South African manufacturers were certified, the chain of custody certification process became much simpler for manufacturers, and a round of certification amongst manufacturers, many of whom were not B&Q suppliers, ensued. Some of these manufacturers supplied B&Q's competitors in the UK, who themselves were coming under pressure to source FSC products. South African companies began to receive requests for FSC from a number of other buyers, including

"We got certified to maintain our supply position in future". Exporter of manufactured forest products

Homebase, Wicks, Great Mills and Metpost in the UK, Bauhaus in Germany and Home Depot in the USA. South African manufacturers saw B&Q's influence here too. At the same time, certified sawmills began to promote FSC and encourage their customers to get chain of custody certification.

South African timber products manufacturers operate in the highly competitive low cost DIY and housewares market, with Brazil and Poland their key competitors. South African manufacturers were aware that FSC was positively regarded in this market segment, and were keen to be able to use FSC certification to differentiate themselves from competitors (both within and outside South Africa). The pressure to become FSC certified intensified considerably once significant volumes of certified pine products became available from Poland.

As awareness about FSC spread, many manufacturers felt that they might find themselves unable to supply European export markets unless they could supply FSC products, since FSC could ultimately become an industry

standard. In this case, certification is less a means of differentiation than a condition of doing business.

For a few manufacturers, environmental concerns were the primary reason for certification, and firms were eager to have a vehicle by which their environmental awareness could be publicly recognised. FSC appears to have been favoured over ISO due to market demand and the simplicity and relatively low-cost of chain of custody certification and because ISO is viewed with some scepticism amongst many manufacturers.

The second wave

A second wave of certification, and renewed interest from the industry in FSC certification in particular, has recently occurred in response to both the effects of the first wave and from current market developments. This second wave seems to be mostly affecting the growers who supply "Asian furniture manufacture"

Increased market demand for FSC certified products and timber has come from several areas. Some are an expansion of existing FSC markets (DIY furniture), whilst others are in existing markets that are now turning their attention towards certified supplies.

timber to the pulp and paper processors.

"Asian furniture manufacturers selling to the European market have approached South African industry to try and source Saligna (Eucalyptus grandis), as they are 'battling' to find certified supplies"

Manager, NCT

The new sources of demand include:

- Japanese paper industry requesting FSC certified wood chips^{XViii}.
- DIY and furniture retailers requiring FSC certified hardwood (notably the Eucalypt, Saligna).
- Home Depot (USA's largest DIY chain) sourcing FSC certified products.
- Enquiries from USA, Australian and European paper / pulp customers about FSC certified products.

These recent developments have created renewed interest in FSC by timber growers. With the majority of pine plantations already certified after the first wave (except those managed by DWAF), the focus for forest management certification is now on the remaining areas of *Eucalyptus* plantations grown for pulp and wood chip markets. Previously, these markets did not require FSC certification and up to a year ago were interested only in ISO certificates.

The route by which certification spread through the supply chain in the first (actual) and second (predicted) wave of certification in South Africa is represented in Figure 1 below.

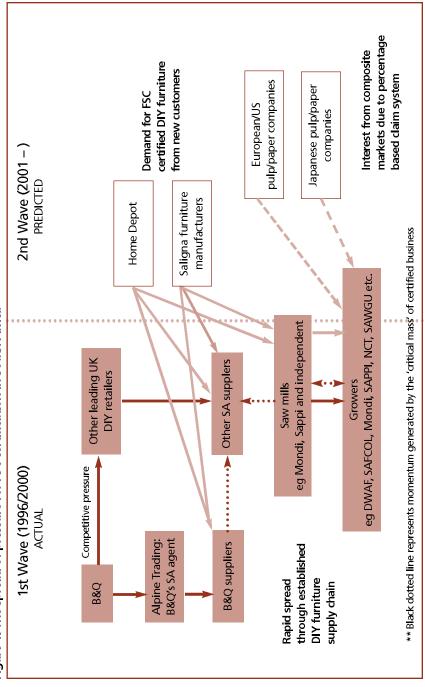


Figure 1. The spread of pressure for FSC certification in South Africa

Pulp and paper market demand

The introduction in May 2000 of FSC's percentage-based claim policy has provided the wood chip and fibre product markets, with a means to obtain the use of an FSC label for a product with a proportion of its material sourced from non-certified forests (Box 12). The introduction of the percentage-based claim has meant that this market is now becoming responsive to companies looking to certification as a potential mechanism for gaining market advantage.

Box 12. FSC policy on percentage-based claimsXiX

The objective of the FSC Policy for Percentage-Based Claims is to allow public recognition for products containing less than 100% FSC-endorsed raw materials, and to reduce the barriers facing industries which rely on large numbers of suppliers, not all of which are yet certified, and to reduce the perceived disadvantages faced by small forest properties supplying the same markets as larger integrated forest enterprises. FSC recognises that one effect of this policy will be that many more products may be marketed with the use of FSC trademarks, which may then become more widely recognised. Another effect will be that the message carried by the trademark is no longer a simple link to a certified forest, and greater care will be needed to provide clear, correct information and to avoid misleading the public.

Organisations in South Africa such as NCT who supply around 90% of its production as wood chips to local and foreign (i.e. Japanese) pulp / paper manufacturers are encouraging its members to join its group certification

scheme to ensure the cooperative can exploit this market opportunity. To ensure adequate quantities of FSC certified wood chips, NCT is providing a premium for members on FSC certified timber (R5 / tonne (US\$0.63/t)).

"A time may come when our members can only sell limited amounts of non-certified timber and we strongly urge our members to regard joining the group certification scheme as a priority".

NCT chairman

Moreover, Sappi will have their remaining pulp wood plantations FSC certified by mid-2002 and will introduce FSC Chain of Custody certificates in relevant mills in preparation for future market demand.

There are mixed opinions on percentage-based claims, especially for solid wood products. Companies in South Africa have endured "Interest is being shown from international customers and the availability of the percentage based claim system makes introducing FSC in our pulp wood business practicable".

Sappi manager

the expense of obtaining certification using only 100% certified material and some now resent the requirements being changed which potentially allow other companies to utilise the label by adopting less costly procedures.

Company experiences of implementing forest certification^{xx}

Although the motivation for certification varies for the three main South African companies and they have pursued different implementation strategies (see box 13), there are a number of common features:

"Some in the industry are frustrates

 Standards and systems. The major companies are now implementing both ISO 14001 (or adopting the ISO 14001 EMS without having it certified) and FSC certification "Some in the industry are frustrated at the moving 'goal posts' caused by FSC's varying requirements for the percentage-based claim system". Manager, Mondi

within their business, finding that in certain circumstances they need both independently audited standards and a sophisticated environmental management system.

- A committed team. In each company the environmental manager has had the
 responsibility for implementing certification and it has been the
 environmental team who have had to develop the new systems and inspire
 staff to change their practices.
- *Support from the top*. However dedicated the team, certification will fail without the support of the senior management
- A participative approach. All the environmental managers stressed the importance of ensuring that staff and contractors felt ownership of the new systems. All had encountered some resistance and introduced programmes of training and workshops to build understanding of, and pride in, certification.
- Taking it step by step. All the companies started by getting one area or one division certified first and used that experience to inform the rest of the certification process
- *The social challenge.* The social aspects of the certification systems were the most difficult for each of the three major companies and this is the area that they would like more guidance on.

Sappi. It took four years for Sappi to put ISO 14001 in place across the company. The implementation of ISO 14001 in forest operations is the responsibility of the Divisional Environmental Manager. Senior management recently made the decision to expand the 'Green Team' from four to twelve staff, most of whom were recruited from outside Sappi. Sappi found the biggest hurdles were the non-forestry related aspects, such as waste management and health and safety issues in the workshops. Ensuring that they meet the ISO requirement of complying with all national laws was a major frustration since there has been so much new legislation passed. Sappi had a full time contract with a group of environmental lawyers.

A member of the Green Team visits every plantation once a month and they have found that the system is popular with most staff. ISO 14001 has helped generate commitment to good management on the ground and the fact that any employee or visitor to Sappi can fill out a Corrective Action Request (CAR) in the expectation that an efficient procedure will deal with it has proved popular. The appraisal system now includes environmental performance based around ISO 14001. However, some of the managers see the Green Team as a 'substantial overhead' that 'stops them from doing things'. All contractors have to be trained in ISO procedures, which has not been particularly popular. However, they are already audited on other aspects of forest management so it is fairly straightforward to add compliance with ISO to these audits. Sappi are training supervisors who are expected to then train the contracted labourers. In future, contractors may be expected to pay for their training. Sappi's next step under ISO is to set standards for suppliers. For example they are looking at setting standards for their Project Grow outgrowers scheme and have drawn up a simple code of practice.

Mondi. In 1996, after receiving several requests for FSC certified timber, the General Manager of Mondi's timber division formerly requested that Mondi's forests should be certified. The responsibility for making it happen fell onto the shoulders of the Environmental Manager of the Forest Division. His first step was to attend a two-week course run by the certifiers, SGS, which he found very useful. He started by piloting FSC certification in the Northern region, logistically the easiest since it was all under one-management team, and then extended it to the other five regions. Now all Mondi's forests have been certified apart from the North

Eastern Cape, which is a very young plantation area.

"FSC is a means of dem

According to Mondi's Environmental Manager, the company took a very participative approach

"FSC is a means of demonstrating that you are doing what you are saying that you are doing." Environmental Manager, Mondi

internally to implementing FSC, feeling that it was essential that staff were committed to the FSC principles for certification to be successfully achieved and maintained. Initially the response on the ground was very mixed, with roughly 20% of foresters keen, 60% 'going with the flow' and 20% resistant to its introduction. The environment team ran a series of workshops and training to try to develop staff and contractor commitment to the procedures. One particularly useful innovation was the implementation of a system for staff to report Corrective Action Requests

SAFCOL. For SAFCOL, FSC was a way of demonstrating environmental credentials, a means for which the company had been looking for several years. The General Manager of SAFCOL was committed to going for FSC right from the start which was crucial to achieving certification. Despite this, the company's environmental manager described implementing FSC as 'an awful experience', requiring a 'paradigm shift' for some staff.

The environmental team put in six months work before the pre-assessment visit from the certifiers and it then took them another 18 months before they felt that

they were ready for the assessment. Despite the preparation, the certifiers raised a major corrective action (i.e. one which had to be 'closed out' before the forest could be certified). Although at the time 'everyone went pale', looking back, the environmental manager felt that the fact that they failed the certification initially helped develop ownership of the

"We have now got staff performance pegged to FSC – and our regions are competing to retain their certificates".

Environmental Manager, SAFCOL

FSC principles and criteria. It took a year to close out the major CAR and during this time the environmental manager saw a major change in attitude to FSC within the organisation. Staff went from meeting FSC requirements because they were told to do so, to being proud of getting it right by managing their forests in a more environmentally and socially responsible manner.

SAFCOL found the most difficult part of becoming FSC certified were the social processes required. Although their human resource department had developed consultation mechanisms, these did not satisfy the certifiers and SAFCOL had to take another look at how to identify and engage with their primary and secondary stakeholders.

Other growers. This group, including medium sized companies, commercial farmers with between 50-1000 ha of plantations on their agricultural holdings, and small growers averaging 0.25-10 ha, have now begun the process of implementing certification. The majority of commercial or medium growers are represented by organisations such as SATGA, SAWGU and / or NCT. NCT introduced an FSC group certification scheme in 1999 that it manages on behalf of its members (Box 13).

Box 13. NCT Group Certification SchemeXXI

NCT administers the scheme, provides standardised documentation, runs workshops and organises a second party audit⁷ by an independent forestry consultant. A member wishing to become certified receives the documentation and attends workshops. After implementing the necessary changes they undertake a self-audit. If they are confident of their compliance they request a second party audit. If the results of that audit are positive they are then allowed to join the group scheme. The individual farms are then audited as part of a sample during the third party assessments (not every plantation is audited every year). Any CARs raised during these assessments must be 'closed out' by all members of the scheme. In addition to the annual subscription fee certified members pay the third party auditing costs.

Members are positive about the improvements the certification standards have introduced for environmental, silvicultural management and long-term management efficiency benefits. However, the increased demand for paper work and formal planning is onerous to those relatively small operations that traditionally managed operations from mental maps and plans. Despite this administrative burden, an additional 80-100 members are currently working towards certification.

^{7.} The second party audit by an independent forestry consultant is an internal mechanism introduced by NCT to assess compliance with FSC standards for members applying to join their scheme. The official audit by an accredited third party certifier is required for group members to maintain their FSC certificate.

The experience of the small / micro growers is very limited to date and is discussed further in the next section.

"I was persuaded by other members to join the scheme, they take pride in managing their plantations to an international standard'.

Experiences of implementing chain of custody certification

NCT member

The purpose of chain of custody certification is to ensure that a certified product can be traced back to its original timber source. As such it is a straightforward 'book-keeping system'. The cost and complexity in meeting chain of custody requirements depends on a company's timber sources and its existing documentation procedures. If firms are only buying timber from certified sources then chain of custody is simple. If firms are using both certified and non-certified wood then they have to demonstrate that they are not mixing these during production. This can complicate operations and scheduling, but a number of firms have chosen to run a dual system in order to ensure operational flexibility.

As more of the large plantations and mills have become certified, sourcing FSC timber has become much easier. Some companies have stopped buying uncertified timber. Others are still implementing a dual system to accommodate sub-contractors using uncertified timber or because they need particular dimensions which are only produced by the small, independent "bush mills", which have been slow to obtain FSC certification.

FSC dovetails with the requirements of the ISO 9000 and 14000 series, with six of the ISO 9000 requirements also required for FSC. The overlap relates to the fact that FSC chain of custody certification is concerned largely with the traceablity of timber, while ISO focuses on introducing systems to control quality or environmental performance. Firms that were ISO certified (especially ISO 9000) generally found FSC relatively easy to introduce in their factories, with most integrating FSC and ISO into one paperwork system.

The way in which firms went about preparing for certification seems to depend very much on the level of prior knowledge and understanding of the FSC system. One manufacturer reported spending just twenty hours preparing for FSC certification, while other firms assigned the task to a dedicated employee for several months. Some companies

have found this very problematic, with one describing it as "a nightmare", and the process of keeping FSC and non-FSC material separate as "painful and laborious". Many firms had found it difficult to get information on FSC and some had hired a consultant to advise on implementation.

"The problem in South Africa's relatively unsophisticated timber products industry – dominated by small and medium enterprises – is that the average manufacturing operation is not oriented to paperwork, and manufacturers are unsure of how to document procedures on paper".

Manufacturing company spokesperson

Firms operating a system of 100% FSC certified material in and out did not find it necessary to introduce any formal worker training in order to secure its implementation. This system does not require any changes in production procedures, and thus has had little impact on most production workers. One manufacturer employing over 1000 people stated that only a dozen people were involved in maintaining the FSC system, including security personnel (who control access to the premises), checkers and administration staff.

Running a dual system requires more time to set up, as more detailed paperwork and procedures are required to keep FSC certified and non-certified timber separate throughout the production process. Training is necessary, as workers must understand the need to keep certified and non-certified timber separate. While there was no worker resistance to the FSC system, the dual system reportedly caused some confusion, as it was not always clear to workers why seemingly identical timber should be treated differently.

Government support

The South African government is supportive of both national and international standards for Sustainable Forest Management (SFM). This has been enshrined in forest policy and legislation. Furthermore, certification from an internationally accredited organisation has been included as a condition of the lease as part of the privatisation process. The terms and conditions of the lease include:

'The tenant will be required within 24 months of the commencement of the lease to acquire certification from an internationally accredited organisation (such as the Forest Stewardship Council or the International Standards Organisation) or any other suitable environmental auditing agency.... and if the tenant is not able to achieve this certification within 24 months...The parties shall negotiate in good faith...and if the tenant loses such accreditation and fails to be re-certified...within a reasonable time...the lessor shall be entitled to terminate this lease.^{XXII}

The government has also initiated a process to develop national criteria, indicators and standards (national standards) for SFM, as required in the National Forests Act, 1998. A sub-committee of the National Forestry Advisory Council has been established to advise the Minister on the process. The committee includes representatives from industry, unions, community groups and environmental and social experts. The first outcomes of the process are expected in late 2002 with a follow-up procedure to build capacity in implementation and monitoring.

The importance and influence on certification of a process to develop national standards is seen as crucial by a number of stakeholders. The current certification standards are largely based on external (international) standards that may not effectively reflect the local context. Under the FSC system, accredited certification bodies are required to use the FSC endorsed national

standard, if there is one. In the absence of such a standard, as in South Africa, certification bodies are required to develop a local checklist, in consultation with stakeholders, that conforms to the FSC's international Principles and Criteria. Consultation on certification body checklists generally falls a long way short of the FSC's process requirements for developing national FSC standards and the requirements of certification body checklists are unlikely to reflect all of the requirements that would be contained in an FSC endorsed national standard.

Thus the national standards development process is seen as a key mechanism to address some of the contentious issues in certification. If it delivers on its objectives it will provide a nationally negotiated consensus on acceptable, appropriate and measurable standards for the South African forestry sector.

4. Impacts of certification

This section examines the impact of the rapid expansion of certification in the forest sector. The costs and benefits are highlighted, and problem areas that still need to be addressed are identified.

Better forest management

Improvements to the physical management of plantations cannot all be attributed to certification. In 1995, the sector produced a set of "Forest Industry Environmental Guidelines" that outlined best practice management to mitigate the environmental impacts of plantation forestry. The guidelines were supported, developed and welcomed by the industry; however, their implementation was voluntary and at best *ad hoc* across the whole sector. The introduction of certification was seen to provide an incentive to formalise their adoption ensuring that the former disparate initiatives were better co-ordinated. Certification audits also raised the profile of a number of management issues that needed to be addressed to comply with standards and achieve certification. The result has been the development of internal checklists for company operations to assess acceptable practices.

The raised profile of environmental issues has led to the improvement of checks and balances in management systems. This includes formalising the once ad hoc adherence to company policies and the systematisation of existing systems to ensure consistency in their implementation. The result has been an increase in the number of environmental management staff within the large companies and raising of the profile of internal environmental impact auditing systems.

"The phases a company goes through in certification are from unconscious uncompliant, to conscious uncompliant, to conscious complaint and finally unconscious compliant". Industry commentator

Improved reputations

The introduction of certification has improved the reputation of South African forest companies at home and abroad. The result has been an increase in transparency in discussions, in particular on environmental issues, with previous detractors from civil society and government groups. The achievement of certification is now being included in promotional material. SAFCOL and other commentators mention certification has provided a mechanism for proving the implementation of best practice. Criticism has reduced as a result.



Box 14. Improvements to operational practices stimulated by certification XXIII

The certification process highlighted a number of common issues companies had to address including:

Water monitoring. The main environmental issue associated with forestry in South Africa is its impact on water sources. Despite having been working on practical means to monitor ground water quality and catchments for some years, SAFCOL did not have a firm system in place at the time of the audit and CARs were issued on water monitoring. Eventually the three big companies, SAFCOL, Mondi and Sappi realised that this was a common issue and established a joint water monitoring and strategy and shared methodology. This system is beginning to show results.

Riparian zones. Mondi managers in particular highlighted river course management as an area, which benefited from certifications scrutiny. A delineation protocol has now been developed with stakeholders, which defines the location of wetlands in the landscape. Several industry representatives agree that the most significant physical impact on plantations of the improved practices encouraged by certification is due to the criteria relating to watercourse management. This includes the felling of trees along watercourses and the rehabilitation of wetlands and riparian zones. Under the ISO system Sappi estimates it has cleared about 15,000 hectares over the last three years in these areas. One medium sized grower suggested this 'horizontal contraction of plantation area has been off set by the gains in improved yields in more favourable areas'.

Road building and maintenance. Forestry roads are often neglected and serve as a continuing source of erosion and pollution of watercourses. When one company was issued with a CAR on road maintenance it responded by appointing a 'roads champion' who developed revised road building and maintenance guidelines and ran a training course for company employees. Another recognised in the certification process that on average it had too many roads in its plantations (1 km per 12 ha in some areas) and is now managing a programme of grassing over some roads (aiming for about 1 km per 30-40 ha).

Clonal material and genetically modified organisms. SAFCOL managers note that certification has influenced their priorities and practices of research. Clones are being investigated in particular for their water efficiency and drought tolerance. Genetically Modified Organisms (GMOs) are being avoided by SAFCOL (another company is however involved in GMO trials).

Mechanisms for learning

The certification process has highlighted the importance of adequate systems to ensure compliance and, more critically, to internalise feedback mechanisms. Feedback includes inputs from audits, a changing policy and legislative framework, and issues raised by those affected by company activities. Also, the dynamic political landscape in South Africa since democratisation in 1994 has meant more stringent demands have been placed on the sector, for example labour legislation and land reform programmes.

Assessors on surveillance visits have remarked on the improvements to systems that support companies responding to the requirements of certification, with formalised mechanisms to address issues raised during audits. This has resulted in improved operational manuals and training for staff. However, a generic weakness has been identified with internalising learning and feedback on broader issues (in addition to certification requirements), to ensure companies are strategically placed to deal with a dynamic national and international forestry environment, and manage the goal of continuous improvement.

Weaknesses are particularly acute with respect to social issues. Issues such as health and safety, stakeholder consultation, social responsibility and tenure security legislation have tended to be viewed as nuisances, which if ignored for long enough, will disappear. However, due to the requirements of certification, management is reappraising this attitude and mechanisms are beginning to be put in place to address these. Despite this, commentators suggest the role certification plays in learning is limited by the nature of the process.

Feedback is limited to CARs read out in the closing meeting and the auditors' report that gives little detail. Company representatives and auditors comment on the lack of an effective discussion forum to relate insights gained on company's programmes and approaches and ways to move forward. The close out meetings at times have been viewed as confrontational sessions with both sides defending their positions. The use of a more participatory forum to discuss issues would be supported by both parties and viewed as a constructive mechanism to encourage greater understanding of the audit findings and methods for improvement.

Paying the costs

A systematic analysis of costs for both forest management and Chain of Custody certification has not been undertaken. However, estimates have been provided of the direct costs, for example those associated with auditing and implementing new systems, and these are illustrated in Table 4.

Table 4. Direct costs of certification

Sappi – estimate putting the ISO 14001 system in place cost approximately R3 million (US\$450,000), with improvements to plantations and workshops an additional R50,000 (US\$7400).

SAFCOL – calculated the combined cost of the environmental managers time and auditing charges as $R0.19/m^3$ (US\$0.03/m³) of the logging price. **NCT** – in addition to the annual membership subscription an approximate recurring cost of R10 per hectare (US\$1.5/ha) was calculated for ongoing auditing charges.

Mills and processors – estimated the average cost to be around R20,000 (US\$3000) per unit. For a firm with less than 150 employees and a low level of complexity SGS estimates the initial audit would cost around R10,000 (US\$1500) including the FSC registration fee (for registration of the FSC certification number). In addition to this is the transport cost (from auditors office to the manufacturer), which is significant if auditors are based in Europe. However, since SGS established an office in South Africa these costs have reduced to around R2000 (US\$300) per auditor.

The important indirect costs of staff time and corrective actions to achieve compliance have not been included in the figures in table 4 and probably form a more significant initial cost for companies. However, these costs are viewed by some as an investment in systems and procedures that will deliver long-term benefits such as improved management efficiency and reduced maintenance costs by 'getting the job right in the first place'.

The South African Bureau of Standards has approached FSC to become accredited to undertake forest management audits in addition to its existing Chain of Custody accreditation and if successful the competition is predicted to reduce costs further. However, commentators are wary that in the absence of national standards this competition may lead to a 'lowering of the hoop'.

Involvement of smaller players

The direct and indirect costs of achieving and maintaining FSC certification for medium and small producers has generally remained prohibitive.

However, a number have endured these costs to secure specific markets. For example, a number of farmers with wattle plantations in KwaZulu-Natal are selling certified charcoal to the German market.

"Requirements are too demanding (costly) for owners of less than 500 hectares of productive plantation to be certified individually" NCT member

In response to this barrier, FSC has devised a group certification scheme designed to share the costs between several producers. The most prominent of these is the one managed by NCT on behalf of its members. This works out

cheaper because one FSC registration number (and therefore one registration fee) is shared. Also, the sampling system utilised during audits does not require visits to all sites at each audit (e.g. if three sites are part of the scheme only two are assessed during any one visit). In addition, SGS charges for Chain of Custody certification varies according to scale and complexity of operation, which is further reduced by firms with less than ten permanent employees qualifying for the small business option, charged at a lower rate.

Micro growers remain the most marginalised group in relation to certification and evidence suggests that pursuit of certification and the inherent costs may distract from more pressing needs to improve small holder livelihoods. Despite this, initiatives are underway to improve the accessibility of certification and distribute its benefits across social strata. The smaller members of NCT are being formed into sub-co-operatives that will eventually join the NCT group certification scheme. The aim of forming these bodies is to spread the cost and administration among members.

Other growers under company out grower schemes, i.e. Sappi – Project Grow and Mondi – Khulanathi, may benefit in future from the support that companies can provide in implementing certification. Sappi is currently rolling-out improved audited standards for its outsourced timber suppliers – which provide about 50% of the company's fibre requirements. Sappi introduced an audited Sustainable Fibre Farming Incentive Scheme to promote the improved management of its external suppliers' forests. Using criteria developed under the scheme, Sappi audits suppliers and awards each a score. The higher the score, the larger the premium the grower will receive for their timber. The company plans to develop further schemes to increase the compliance of suppliers to the ISO system and, if relevant, to FSC standards when adopted across the company.

An initiative has been started with a group of 'independent' micro growers (7000 growers not associated with company schemes) to investigate the nature of support required to bring them into the formal market. In addition to the building of capacity required by other micro growers, support will be needed to legitimise their holdings – many have not been issued with water use licences under the Water Act, 1998.

Market advantage?

The perceived market advantage of obtaining FSC certification has not materialised to the degree some companies expected. Initial expectations among some of the first B&Q suppliers to become certified was that B&Q would 'reward' their rapid certification by transferring business from non-certified manufacturers. This did not materialise and B&Q's perspective was that it was not in the 'spirit of FSC' to prejudice suppliers before their initial year 2000 deadline (the original date by when all timber sourced by B&Q would be FSC certified). This deadline has consequently been removed with B&Q revising its timber buying policy to reflect a more flexible approach of working with suppliers to achieve FSC certification rather than penalising them.

New business

Many producers did not experience the predicted increase in sales and subsequent expansion of markets and the demand for FSC timber still remains concentrated in the LIK DIV market. As

concentrated in the UK DIY market. As outlined in section 2 a renewed interest in FSC certified products has occurred and it remains to be seen if South African companies are able to exploit the opportunity.

"Certification has become almost a condition of doing business. Though new doors have not necessarily been opened, FSC has prevented doors being closed on us.".

Few regret becoming certified, in fact the process has helped consolidate and secure existing markets. Moreover, some firms feel that having FSC has improved their

Sales manager, medium size furniture manufacturer.

marketability to prospective customers, and others report getting orders for new products as these customers try to move away from non-certified suppliers, particularly in Asia.

Marketing strategy

Commentators suggest that greater market advantage could have been secured by the South African forest sector as a result of the rapid spread of certification and that a disparate marketing strategy by the whole industry may have caused a missed 'window of opportunity' to secure a larger market share. Even the larger companies are only recently realising the marketing opportunities certification represents. A collective marketing drive is proposed to capitalise on South Africa's advantage before competitors 'catch-up' i.e. Poland and Brazil. This will build on South Africa's 'comparative advantage of low cost manufacturing and high plantation growth rates' identified as key by a timber buyer.

First mover advantage

Interviews with UK DIY retailers suggests that the relatively early certification of South African manufacturers helped improve their position in the market and first-mover advantage has come into play. In 1996, South Africa hardly featured in Homebase's supply list, now the company

estimates that around 10% of its timber purchases are from South Africa, particularly pine doors and shelving.

"South Africa came from no where, getting FSC quickly, at just the right time, when buyers were looking hard for certified sources and SE Asia was in turmoil".

Increased transparency

A non-tangible benefit of certification has been the improved transparency it created throughout the supply chain. As individual producers products are

Homebase spokesperson

marked with a unique manufacturers certification number it becomes easier to monitor quality standards. Previously defects could only be traced to country of origin now they can be pegged to a specific manufacturer. Also it is possible for customers to recognise whether a supplier is supplying products to its competitors.

Price premiums

The general opinion is that certification has not resulted in either timber or product price premiums. The message suppliers received from retailers is that 'green is good as long as it does not come at a premium'. Also, as price is a major determinant of competitiveness, FSC certification has not meant a long-term commitment on the part of buyers and other criteria such as quality and flexibility are mentioned as important.

"The formal audit procedure does not check with stakeholders whether consultation has been adequate".

Auditor

There was a perception that the initial lack of FSC certified timber would push up prices but this has not happened. Possibly due to the speed with which certification spread and that certain manufacturers undertook vertical integration and acquired plantations to ensure adequate supplies. The shift of the market to sourcing FSC certified timber has not resulted in a price increase but certified companies at least seem to have benefited from securing

existing markets.

Stakeholder consultation

A general consensus suggests that stakeholder consultation is the weakest link in the certification process by both forest companies aiming to meet the requirement of the standard and certification companies

"Demands of local communities are very different from other stakeholders, such as Environmental NGO's, as they include issues such as resource access e.g. firewood etc." Representative from forest industry association

steering of the certification procedure. Commentators propose that its effectiveness depends on the time and resources available and the familiarity of the assessors with the stakeholders in the area being assessed.

The process of consulting with a broader range of stakeholders stipulated under the FSC process is relatively new. Most companies had fora established to discuss issues with formal groups such as environmental NGO's but communication with neighbouring communities in particular was limited.

"The industry is wary of the requirements of consultation as expectations of benefit sharing might be too high." Industry commentator

Reasons for this lack of interaction include resource limitations and a perception that engagement would raise expectations that a company could not meet.

The requirements under FSC have brought this issue higher up company agendas and more proactive initiatives are underway. One company has employed an individual specifically tasked to establish a network of local community stakeholders to interact

"FSC has helped focus minds on social issues." Manager, Mondi with. The three larger companies are attempting to widen the participation in regional fora for groups not previously represented and agree further improvements are still required.

Box 15. Problems with stakeholder consultation processes in certification XXIV

The consultation process and methods used under FSC have also been criticised and the following areas remain problematic:

Stakeholder definition. Under the FSC process the certifying body requests a list of stakeholders from the company to be audited before the main assessment. Typically, company lists consisted of clients, contractors, suppliers, friends and neighbours predominately from a specific sector of society – reflecting how the company sees itself, its social environment and existing networks of communication. However, the concept of stakeholder is being redefined to include local communities and other interest groups.

Inappropriate interaction with stakeholders. Assessors suggest that the practice by some companies of organising large groups of forestry staff, contractors and observers to accompany auditors on assessment visits is admirable to try and generate understanding among participants, but may not be the most conducive approach for engagement with stakeholders, such as workers. In addition, many groups do not know about FSC and how to respond to the faxes they are sent. Also, the use of formal communication e.g. faxes, letters etc, may be inappropriate for canvassing opinions from rural communities. Recommendations for improvements include spending more time with different stakeholder groups with greater effort to overcome language and power differences.

Unrepresentative consultation responses. The experience to date has shown that formal responses are biased towards certain groups and non-response is interpreted as consent. A pattern emerges with forest managers, contractors, forestry consultants and academics responding promptly and eagerly, whilst unions, local and provincial government officials being difficult to get hold of and local communities, worker representatives and traditional authorities generally not consulted at all.

Lack of two-way communication. The consultation process is seen as extractive with no obligation on the part of the audit team or company to feedback results to those who have been consulted. Furthermore, no mechanism exists for stakeholders to raise issues of concern outside of the formal consultation process. It is suggested that a long-term process is required to develop better two-way flows of information increasing the transparency and inclusive nature of the process.

Internalising consultation. Other gaps in the consultation process have included the lack of formal structures and company representatives responsible for managing the consultation process. In order to manage the process and internalise feedback the establishment of formal internal structures is seen as key to ensure meaningful interaction.

Responding to social issues

The requirements under FSC concerning social issues are the least clearly defined and debate exists over their interpretation. The lack of consensus on precise definition is causing concern with those involved in implementing certification with inconsistencies arising over the understanding of what constitutes compliance. Both auditors and companies welcome the national standards process and hope it will lead to an objective set of standards for these issues. Despite the inconsistencies, certification has raised the profile of social issues with companies and many are undertaking initiatives to address them. SAFCOL managers, for example, believe certification has bolstered their Corporate Social Investment Fund to support the provision of school and clinic infrastructure.

Whilst some social criteria appear nebulous, a few are more objective, such as land legislation e.g. the Security of Tenure Act. This Act is sufficiently specific to serve as an operating standard. Despite this, debate still exists over the precise interpretation of the legislation with a major CAR being raised recently against a company that in the opinion of the auditors was in contravention of the Act. The company's legal team contested this interpretation. The contention surrounding this seemingly objective standard reflects the debate about the degree of responsibility a company should have to provide infrastructure to tenants who are not in the company's employ. Again this has been raised as an example where clearer guidelines are needed for interpretation.

Incorporating outsourced forestry operations?

The current trend for outsourcing forestry operations by forest owning companies has focused attention recently on the roles and responsibilities of the parties in relation to certification. In particular, the issue of contractors complying with FSC criteria has raised concerns. Initially, the perception was that as long as the organisation ultimately responsible for managing the plantation to be certified had adequate systems and practices then a certificate would be issued. However, this view omitted the fact that the FSC accredited certifier, certifies the forest management unit (FMU) and not the plantationowning company, therefore, all enterprises undertaking operations in an FMU including contractors have to conform to the requirements. This resulted in a number of major CARS being raised reflecting the inadequacy of service providers systems and practices. The outcome has been that companies are now proactive in encouraging and ensuring that their contractors comply with the necessary standards, for example, health and safety legislation. The situation has started to change with companies implementing revised contracts that stipulate contractor compliance. Commentators suggest these revised contracts are becoming effective instruments to improve performance management. In some cases proving a stronger mechanism than internal company procedures that promote compliance among their own staff.

Nevertheless, the negative social impacts of outsourcing, sometimes brought on by 'perverse responses to progressive policy change', should not be underestimated. Some commentators have noted how recent legislation, aimed at enhancing workers' rights and establishing the security of tenure of plantation workers (the Labour Relations Act, the Basic Conditions of Employment Act, the Employment Equity Act and the Extension of Security of Tenure Act) seems to have had the unanticipated consequence of hastening the rush of plantation forest management towards the outsourcing of labour to private and competing contractors. Where this is done in such a hasty manner, there is strong evidence that this practice has significantly decreased workers' wages, weakened the bargaining power of trade unions, and bequeathed the problems of quality control, productivity and labour management to small businesses forced to compete with each other for the contract. The difficulties of significantly improving the ethical, partnership, qualitative aspects of forest management under these conditions are significant.

Implementing forest policy

The experience and potential of certification has in part provided the impetus behind the process to develop national standards for sustainable forest management. As mentioned, stakeholders have emphasised the importance of such standards in developing

understanding and verifiable bench marks for forest enterprise engagement ,in particular with social issues. The industry supports the process to provide a specific South African context for SFM. However, it remains to be seen how well-focused on needs, and how well negotiated amongst stakeholders, these standards become.

"Some in the industry are concerned the national standards will be developed in isolation and will not be pragmatic enough." Manager, Mondi

The government has also adopted the use of compulsory certification as a proxy for direct government monitoring of lease conditions in the privatisation process.

Furthermore, industry representatives are unanimous in recognising the significant impact voluntary certification has had on the self-regulation of the industry, in particular, concerning legal compliance. The auditor at present is playing a role of substitute regulator in the absence of adequate government monitoring.

"Certification is a useful tool for 'co-regulation'. However, it is not a justification for government not to develop a monitoring/regulatory function. People may not be comfortable with private regulation."

Industry commentator

5. Future of certification in South Africa

This section reviews the future trends and challenges for certification in the forest sector of South Africa.

Continued expansion of certification

With certification's continued rise, it is estimated that approximately 90% of the plantation area will hold FSC certificates within the next 2-3 years. This predicted expansion is a result of new market demands for certified products, in particular within the pulp and paper sector. This has stimulated companies and organisations to either consider introducing further certification (Sappi – now introducing FSC certification to all plantations) or creating greater momentum behind the expansion of existing schemes (NCT – pushing its group certification scheme).

Further interest has been seen in the USA DIY market and from the increased demand for certified hardwood (Saligna) products. The combined effect of this renewed interest is likely to result in an increase in the number of plantations and processing facilities seeking certification.

Industry commentators suggest that the remaining 10% of the plantation area may never obtain certification because:

- The domestic market it supplies does not require certification.
- The requirements (and costs) of certification remain prohibitive for smaller growers.

The market demand for certification is pivotal to its continued expansion. As the sector is motivated by profit, only FSC's ability to act as a mechanism for providing market advantage, either by increasing or securing access, will determine its permanence. At present, the demand for certification is limited to a sector of the DIY export market. Domestic demand is non-existent; a situation that is not predicted to change in the short – medium term. Moreover, manufacturers have not all felt direct pressure to obtain FSC certification after the first wave of implementation. The dominance of a small number of large companies that have already obtained certification may have skewed the actual importance of FSC in the South African forest product sector.



Development of National Standards

The development of national standards for sustainable forest management is supported by the industry and is not seen to threaten the future implementation of voluntary certification. In fact, if the process delivers the expected outcomes, it is believed it will strengthen the current certification standards by providing a framework for sustainable forest management which is truly South African. The hope is that an inclusive process of standards development, involving all stakeholders, will result in an opportunity to discuss and agree standards for issues such as stakeholder consultation and social responsibility.

The national process will result in an agreed set of 'baseline' minimum standards for South Africa forestry. Certification standards will then have to

reflect these, hence, improving their applicability to the local social, environmental and economic context within which South African forest managers operate and their response to the aspirations and concerns of South African stakeholders. Some industry representatives are concerned that if national standards become law the industry may become over regulated.

"A review is required of incentives for sustainable forest management to compliment regulatory mechanisms.

For example, if companies are certified they could receive a financial incentive in the form of a reduction in water use charges."

Environmental Manager, Sappi

The Government has also raised some concerns over their capacity to monitor compliance of national standards. These concerns will need to be firmly addressed in the process ahead.

Accreditation and development of certifiers

Currently, SGS is the only FSC accredited certifier for forest management certification. Both SGS and SABS are FSC accredited to issue chain of custody certificates. SABS is also in the process of applying to FSC to become accredited so as to undertake forest management certification. An additional certifier is generally welcomed by the forest sector.

Positive competition, leading to a reduction in auditing cost and improved service delivery, is supported so long as the competition does not lead to 'corner cutting' and erosion of certification's reputation and international credibility.

"The relationship between the certifier and company being certified is one of mutual learning. A partnership develops between the two bodies walking a path together".

Manager, Mondi

The arrival of new certifiers may alter existing company-certifier relationships, but not irrevocably as the certifiers will still have to draw on the same pool of qualified auditors. Auditors also emphasise the value of developing a relationship with a company and the benefits of return visits by the same individuals. However, they warn against

this relationship becoming 'too cosy' resulting in the loss of objectivity. The national standards are seen as crucial by both the industry and auditors to help provide objective benchmarks.

Addressing the social issues

Processes to improve understanding and compliance with social issues are being developed. Auditors have witnessed improvements and companies have introduced stronger systems to help ensure compliance. Processes include the establishment and extension of existing stakeholder fora to improve interaction. Invitations are extended to stakeholders to attend any internal or external

audits with mechanisms to enable them to raise CARs. The result has been a reduction in the number of social CARs. However, despite the recent developments, companies acknowledge they still have some way to go with consultation, interaction with stakeholders and the formalisation of systems for issues to be raised and addressed.

"The industry should not be scared of addressing social issues, and in fact we should have started ten years ago. If we are seeking true sustainability, social issues are as important as environmental and we should have the maturity to deal with it".

Environmental manager, Mondi

It is also recognised that more effort has to be made by the wider sector in reaching workable understanding on issues such as social responsibility. Processes need to be designed and implemented similar to those used in the process to develop the protocol for delineation of protected wetland areas. Stakeholders believe the national standards process will provide such a mechanism. However, there is some concern that the process may provide a greater understanding but not specific benchmarks acceptable to the FSC. Some stakeholders would like to see a FSC national initiative, following the production of the national standards, to rectify this situation.

Engagement of small growers

Several industry commentators and independent researchers conclude that due to capacity and resource constraints the requirements of certification are too demanding for the majority of small growers.

The requirements of certification schemes have to date been prohibitive and act as a barrier to potential markets. However, initiatives to address this are being piloted, for example, small grower members of NCT are being supported to join their group certification scheme. Further work is required to investigate feasible support mechanisms for small growers to obtain certification, for example, collective organisation models. A number of commentators suggest that a more flexible auditing approach could increase the accessibility of schemes, by placing a greater emphasis on auditing the outputs of standard compliance instead of on the administrative processes.

Presently, small growers are not penalised as market demand for certification is only from export markets where a limited volume of their timber is supplied.

The majority is sold to the domestic construction or pulp and paper markets that either don't require certification or are only just showing an interest. Even if the South African pulp and paper markets adopt FSC certification, commentators believe the FSC percentage based claim system will allow continued access by small growers to the market by supplying the non-certified portion.

"The FSC percentage-based system will benefit those that cannot obtain certification', but should not be an opt out clause for those that can achieve certification".

Industry commentator

Bringing in the contracted out

The trend in the South African forestry sector as elsewhere in the world is for a greater proportion of operations to be outsourced to contractors. Early audits identified a number of CARs associated with contractor compliance of existing labour legislation i.e. health and safety. These CARs heightened awareness that responsibility for compliance of contractors relating to a forest management unit was an issue companies needed to address. The major companies undertook training and information dissemination programmes with their contractors. Also, the terms and conditions of contracts were amended to ensure compliance with certification standards.

The Forest Contractors Association, in partnership with the forestry industry, has taken this process a stage further through the introduction of the Forest Contractor Productivity Scheme. The scheme is a formal programme of technical and business skills training focused particularly on emerging contractors and designed to strengthen their effectiveness.

To ensure sector-wide compliance companies must demonstrate consistency by only awarding contracts to those that have undertaken the necessary improvements. The employment of contractors that offer the cheapest service, but do not strictly adhere to the new standards, produces a mixed message and a dis-incentive for contractors to implement the expensive improvements. The cost of such improvements has not been compensated by higher prices. However, the long-term improvements envisaged are seen as an investment and a positive move by contractor representatives.

Outsourcing of forestry operations is predicted to increase in the future and is an important issue for forest management and certification. Contentious issues still remain, such as employment security, wage levels and workers' conditions. The industry and the unions need to become involved in the international debate and moves have been initiated under the national standards development process. This process has engaged with the International Federation of Building and Wood Workers Union (IFBWW), which has pledged their support to national unions to ensure labour issues are adequately addressed.

The key challenges

Certification has spread rapidly throughout the supply chain in South Africa since its introduction in 1996/7. The swift uptake by the three large companies has created a momentum probably more significant than that provided purely by market demand. Its implementation has caused a range of positive benefits for sustainable forest management in the country but more importantly highlighted areas where future challenges remain. Key issues that need to be addressed include:

Ensuring social inclusion

A range of stakeholders support improvements to the implementation and interpretation of the social criteria specified in certification standards and certification procedures. This includes making the consultation process more inclusive for all societal groups and entrenching two-way communication mechanisms into the formal management structures of companies. Understanding is also required on the scope of company social responsibility and how far they can be expected to share the benefits of their operations. This issue is not unique to certification, or the forest sector, but also relates to the wider framework of sustainable development in the country and the process to incorporate peoples and areas formerly excluded into the formal economy. However, the forest sector can have a positive impact on the outcome of these processes by widening the involvement of groups beyond their traditional stakeholders.

Overcoming barriers for small/medium scale producers

At present, the cost and administrative demands of certification remains a barrier for the involvement of smaller enterprises in certification. Fears exist that, if the situation remains the same, future markets demanding certification will lead to discrimination against those unable to achieve certification. Support is required for the expansion of current initiatives under group certification schemes to include smaller producers and the development of mechanisms for the large number of growers who remain outside of these corporate schemes. Suggestions include the possible modification to the audit process to focus more on the outputs of sustainable management rather than the expensive administration systems. The FSC percentage-based claim system may provide a short-term mechanism to allow continued market access for these producers but, if the benefits of sustainability are to be realised in the long-term, more needs to be done to encourage and support improved management of all producers.

Strengthening the contracting industry

Moves are underway to improve the compliance of contractors with certification standards and the provision of training and revised contracts has drastically improved the situation. However, further support from both the government and private sector is required to ensure the benefits of improved standards are shared by the whole contracting sector and emerging businesses are supported to be able to compete. This is particularly important in light of the trend for further outsourcing of company operations and the opportunities this offers to new entrants to the industry.

Negotiating national standards

The process to develop national standards for sustainable forest management is seen as key to addressing a number of the issues raised by certification, and providing a process for stakeholder negotiation of major elements of sustainability within the South African context. The industry provides willing participants and supports the process – most companies that are certified believe that the minimum standards developed by the process will be met by them through their existing procedures and systems established to meet the requirements of certification.

The challenge for this standards development process, similar to others across the world, is reaching consensus on the interpretation and understanding of the social dimensions of sustainability. The process must be seen to address the issues explicitly given the dynamic context of land claims, labour legislation changes, outsourcing and the need to redress the injustices heaped on previously disadvantaged groups in the country.

As yet, the process can hardly be said to reflect the views of all South African stakeholders. It is still a government led process and whatever elements of criteria, indicators and standards find their way into certification, they will not be a consensus standard. What is needed (and ultimately required under the FSC scheme for example) is a national certification standard developed by a fully representative national group.

Laying the foundations for sustainable land use

Further investigation is required as to whether the rigour and consistency of the certification procedures are adequate in relation to broader land use questions. For example, an area of SAFCOL plantations adjacent to the St Lucia Wetlands, an international World Heritage site, was certified. This area has now been removed from the privatisation package as it has been deemed to be unsuitable for forestry and also damaging to the wetland system. It will be converted to indigenous vegetation over the next five years. Should the certification process not have identified that forestry was an inappropriate and in fact detrimental land use in this case?

Certification to date has had little impact on forest landscape design, even on such issues as the proportion and distribution of natural habitat within plantations and the connectivity of natural habitats. Certification would only likely have such land use-level impacts if the certification standard required a change to the status quo. Thus, this issue is intimately linked to the previous one – concern that the status quo is not reflective of all major stakeholder views.

This is particularly pertinent as certification has been introduced during a time when national debate and studies are taking place over whether land uses other than forestry, in some places, would not be more appropriate, given the concerns over water management, employment generation and local development.

Appendix 1: The questions asked during the information-gathering phase of the study

General issues discussed with stakeholders:

- 1. Impacts of certification on Sappi, Mondi and SAFCOL's forest management, company operation, stakeholder relationships, and product markets.
- 2. Impacts of, and prospects for, certification on the rest of the forest products supply chain.
- Prospects for certification leading to further environmental, social and economic improvements.

Specific questions asked:

The impacts of certification on forest management

How has certification affected forest management and planning? How has certification affected forest monitoring and research? How has certification affected the management of environmental values? What are the changes in costs of forest management?

The impact of certification on stakeholders

How has certification affected local people?

How has certification changed the socio-economic structure at the local level?

Have there been any increases or decreases in community-related costs

How is certification changing the ways that companies operate?

How has certification changed the internal structures for managing environmental and social issues?

What is the organisational learning resulting from certification? What are the costs of certification to the company?

Changes in the companies' markets

How is the company using certification in its reputation management? Has certification changed the companies' marketing strategy? Has certification changed the companies' markets?

For non-certified companies

Is becoming FSC certified an issue for the company (is it likely to become one?) What are the constraints to gaining FSC certification? How has certification of other local and foreign companies affected business?

For certified companies

term market advantage?

What are the company's reasons for gaining chain of custody certification?
What were the direct and indirect costs?
What have been the direct and indirect benefits?
To what extent does the company foresee FSC certification giving them a long-

How has certification changed the policy and institutional environment?

How is certification changing the policy environment?

How is certification changing relationships between forest enterprise and other organisations?

Has certification created an extension effect?

What type of changes to the FSC and ISO certification systems would be required to lead to greater environmental and social benefits?

Are there changes in the certification assessment and auditing process which would improve the usefulness or cost effectiveness of the process from the point of view of large, medium and small companies?

What lessons are there from the analysis of FSC and ISO certification for the national development of standards and criteria?

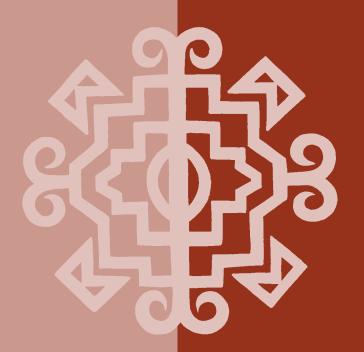
Appendix 2: Details of Timber Products Manufacturers Interviewed^{xxv}

Company	Annual Turnover	No. of Employees	Product Range	Main Markets	FSC Certified?
Firm A	R12-R15 million	100	Knock-down pine bedroom furniture	UK, Reunion, Dubai, Kuwait, Germany, France	No
Firm B	_	680	Interior and exterior house doors	UK, USA, Australia	Yes
Firm C	R9-10 million		Pine beds & cabinetware	All exported – mainly to UK	No
Firm D	R6 million	60	Saligna garden furniture	2/3rds of production exported – Germany, Israel and Scandinavia	Yes
Firm E	R30-36 million	140	Pine kitchen & houseware	40% exports – UK, Germany, Italy, Switzerland, France, Australia	Yes
Firm F	_	225	Pine kitchen, bathroom and bedroom doors	UK, Europe, USA and Australia	Yes, also ISO 14000
Firm G	Existing company only recently turned to export	97	Pine and Saligna garden benches, pine shelves	UK	Yes
Firm H	R15 million	140	Pine shelves, tables and chairs, desks and TV stands	UK, France, Reunion, Australia, West Indies	Yes
Firm I	_	200	Pine shelving and related DIY products	UK, USA, Japan	Yes
Firm J	R110 million	1100	Pine & Saligna DIY	Most EEC countries, USA, Australia	Yes
Firm K	R12 million	60	Saligna garden furniture	UK, Germany	Yes
Firm L	R60 million	200	Pine doors	UK, USA	Yes
Firm M	R12 million	140	Pine DIY products	60% exported, all to UK	Yes
Firm N	New company	40			

This table refers only to manufacturing activities. Where firms are also involved in other activities, the information given refers only to manufacturing activities e.g. turnover from manufacturing activities, export destinations for manufactured products.

Endnotes

- ⁱ Interview with Roger Godsmark Forestry Owners Association (now Forestry South Africa) (August 2001).
- ii Sappi Annual report 2000. Sappi, Johannesburg.
- iii Mondi Annual report 2000. Mondi, Johannesburg.
- iv Personal communication, Jeff Leonard, Global Forest Products, 2002
- ^V Mayers J., Evans, J, and Foy, T. (2001). *Raising the stakes: impacts of privatisation, certification and partnerships in South African forestry.* International Institute for Environment and Development, London.
- vi Dunne, N. (2000). *Impact of environmental certification on the South African forest products supply chain.* International Institute for Environment and Development, London.
- vii Biggar, N., Morel, M. & Sharma, V. (1999) *Comfortable Changes? A Study of the Convergence of Developing and Industrially Advanced Country markets: The Case of the Furniture Sector.* Unpublished paper.
- viii Dunne, N. (2000). Ibid.
- ix Bass S., Thornber K., Markopoulos M., Roberts S., & Grieg-Grah M. (2001). *Certification's impact on forests, stakeholders and supply chains.* International Institute for Environment and Development, London.
- ^xForest Stewardship Council (FSC) website (www.fscoax.org/), September 2002 xi FSC, September 2002 ibid.
- xii FSC, September 2002 ibid.
- XIII B&Q (2000). Revised timber buying policy August 2000. B&Q. UK.
- XIV Interview with Martin Scharf TDM (January 2000)
- XV Interview with Jed Krige and Gary Chaplin Braecroft Timbers (January 2000)
- XVI Interview with Phil Flowers Moxwood (January 2000).
- xvii Interviews with Arnold Roussow, Marketing Manager, Weza sawmill and Sean Gannon, Lomati mill (January 2000).
- xviii NCT (2001). The Yardstick monthly update on the timber markets from NCT Forestry Co-operative Ltd. Issue 21 August 2001.
- xix FSC (2000). Policy on Percentage Based Claims 15 May, 2000
- XX Mayers *et al* (2001) ibid and interviews with John Scotcher and Dave Everard, Sappi, Sean McCartney and Colin Harvett, Mondi, and Gerrit Marais, SAFCOL (August 2001)
- XXI Interview with Craig Norris NCT (August 2001).
- XXII Draft lease document, February 1999. DWAF, Pretoria.
- xxiii Mayers et al (2001). Ibid; Scott, D (2000). Environmental Aspects of the Forest Management Certification Process, IIED, London; Clarke, J. (2000) Social and Environmental Aspects of the Forest Management Certification Process: A Discussion of Social Assessment Components in South Africa, IIED, London; Hamman, J. (2000) Forestry Certification: Social Aspects, IIED, London; and von Maltitz, G. (2000) The Impacts of the ISO 14000 Management System on Sustainable Forest Management in South Africa, IIED, London.
- XXIV Mayers et al (2001) Ibid, and Crawford Cousins, C. (2000) The Impacts of Stakeholder Consultation in the FSC Certification Process on Sustainable Forest Management in South Africa, IIED, London.
- XXV Dunne (2000) ibid.





International Institute for

Environment and

Development